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Daily and Weekly Upwelling Indices, West Coast of North America, 1967-73

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Daily and Weekly Upwelling Indices, West Coast of North America, 1967-73

ANDREW BAKUN[1]

ABSTRACT

Daily and weekly indices of intensity of large-scale wind-induced coastal upwelling at selected locations along the west coast of North America are presented for the 7-yr period, 1967-73. The indices are based on 6-hourly computations of the offshore component of Ekman transport using the synoptic surface atmospheric pressure analyses produced by the Fleet Numerical Weather Central to estimate the sea surface stress. The magnitude of offshore transport is considered an indication of resultant upwelling through the bottom of the Ekman layer. A spatial distortion in absolute magnitude results in noncomparability of numerical values between different locations.

INTRODUCTION

Upwelling is a highly variable phenomena which can have important effects on fishery resources. As an aid in accounting for these effects, Bakun (1973) presented monthly indices of intensity of wind-induced coastal upwelling at intervals of three degrees latitude along the west coast of North America. This choice of time scale recognized that although important variations in the upwelling process are known to occur on time scales shorter than a month, specification on shorter scales often may not be required or even desired. Some major effects of upwelling occur at the very base of the food chain and are separated from the harvested resource by a considerable time lag and by multiple interacting biological processes. Where such extended linkages are involved, attempts to relate individual short-term upwelling events to characteristics of a subsequent fishery are likely to be unrewarding.

However, over longer time scales the mean value may be less important than the frequency content of the distribution from which the mean was formed. For example, a month of continual, fairly steady upwelling activity may have a mean rate of upward transfer similar to another month in which nearly all the upwelling occurs in one short, very intense burst. However, the responses of the biota in the two cases might be quite different. In addition, there are certain applications to which detailed specifications of individual upwelling events are pertinent. For instance, the life history of a particular organism may be such that a crucial process takes place within a definable, short time period. In cases where tactical fishing success is related to upwelling conditions, an indication of short-term variations in upwelling may aid in formulating fishing strategy and in interpreting catch data. Multidisciplinary investigations such as the CUE experiments (O'Brien and Smith 1971) promise new insights into the mechanisms linking upwelling phenomena to fishery resources. Early application of results of such efforts may be facilitated by having descriptive indicators available which are compatible with the short time scales of the experiments but which are independent of a particular observational program and can be extended to the larger time and space scales involved in most fishery problems.

This report presents daily and weekly means of upwelling indices computed at 6-hr intervals over the 7-yr period, 1967 through 1973. The input data are synoptic surface atmospheric pressure fields. The calculation procedures and the locations (Fig. 1) are identical to those used by Bakun (1973). However, in the present case a lower value for the drag coefficent, corresponding to the use of synoptic rather than monthly mean input data, is used to estimate the stress of the wind on the sea surface.

METHOD

The procedure for calculating upwelling indices is presented in detail by Bakun (1973). Six-hourly synoptic surface atmospheric pressure fields prepared by Fleet Numerical Weather Central (FNWC) are arranged on the 3-degree mesh length grid shown in Figure 1. Finite difference derivatives are formed and the geostrophic wind is calculated. An estimate of the wind field near the sea surface is made by rotating the geostrophic wind 15 degrees to the left and reducing its magnitude by 30% to approximate frictional effects. The sea surface stress field is computed according to

$$\vec{\tau} = \rho_a \; C_d \; |\vec{v}| \; \vec{v} \qquad (1)$$

where $\vec{\tau}$ is the stress vector, ρ_a is the density of air, C_d is an empirical drag coefficient, $\vec{v}$ is the estimated wind vector near the sea surface with magnitude $|\vec{v}|$.

The resultant transport in the surface layer of the ocean is calculated from

$$\vec{M} = \frac{1}{f} \vec{\tau} \times \vec{k} \qquad (2)$$

where $\vec{M}$ is the Ekman mass transport, f is the Coriolis parameter, and $\vec{k}$ is a unit vector directed vertically upward. The component of computed Ekman transport directed off shore is termed the *upwelling index* and is considered an indication of the rate of upwelling of deeper

[1]Pacific Environmental Group, National Marine Fisheries Service, NOAA, Monterey, CA 93940.

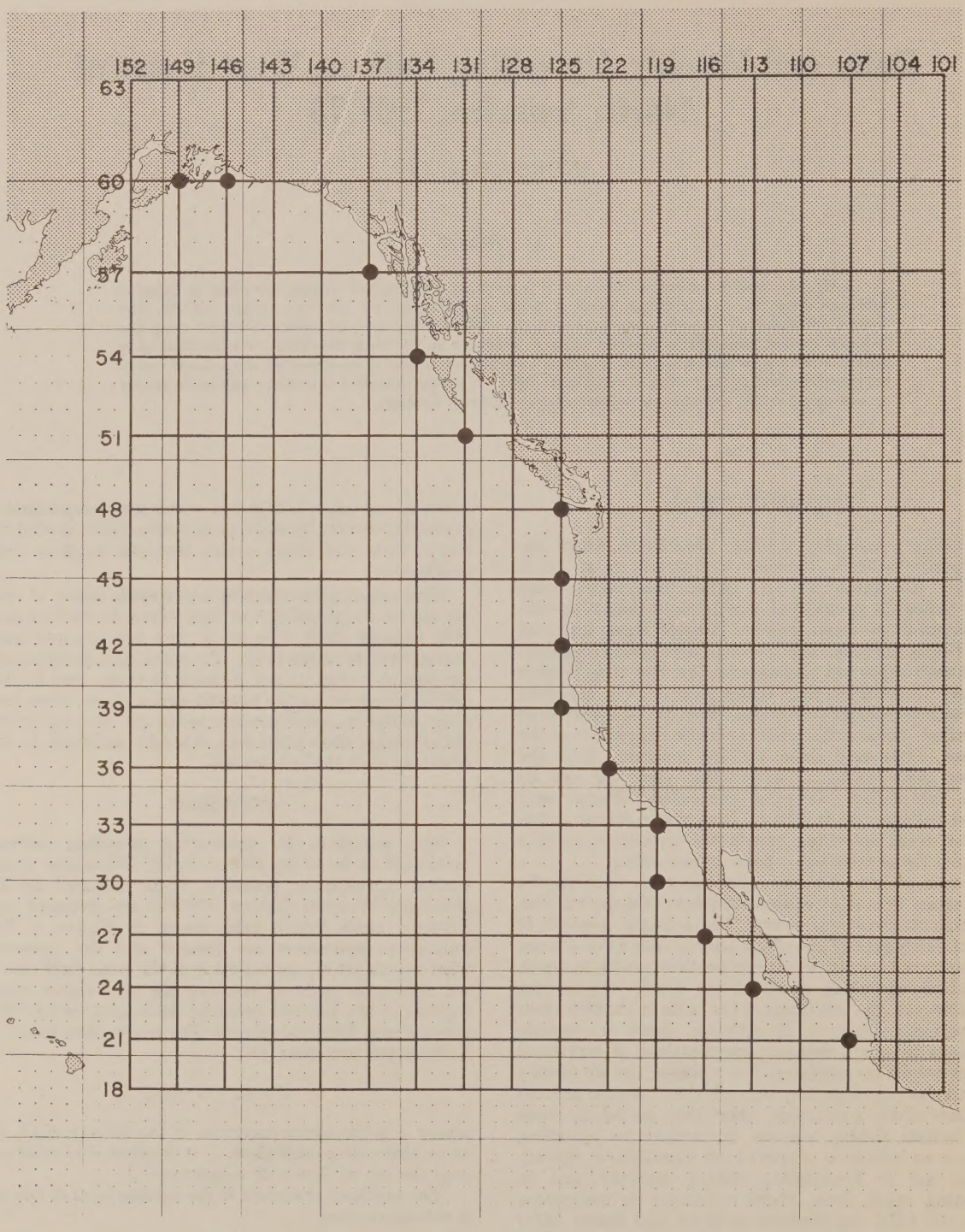

Figure 1.—Data grid. Intersections at which upwelling indices are computed are marked with large dots.

Table 1.—Coastline orientations chosen to characterize the dominant coastline trend at each location on a scale of approximately 200 miles. The directions of vectors tangent to the coast with the ocean on the right are given in degrees from true north.

LOCATION Lat.	Long.	COASTLINE ANGLE	LOCATION Lat.	Long.	COASTLINE ANGLE	LOCATION Lat.	Long.	COASTLINE ANGLE
60°N,	149°W	69	48°N,	125°W	166	33°N,	119°W	129
60°N,	146°W	90	45°N,	125°W	185	30°N,	119°W	155
57°N,	137°W	146	42°N,	125°W	180	27°N,	116°W	153
54°N,	134°W	163	39°N,	125°W	156	24°N,	113°W	144
51°N,	131°W	135	36°N,	122°W	152	21°N,	107°W	164

waters to replace those driven offshore by the stress of the wind. The characteristic coastline orientations used to resolve the offshore component are listed in Table 1.

Constants Employed in the Stress Calculation

Following the procedure of Fofonoff (1960),[2] the density of air used in Equation (1) was considered to have a constant value of 0.00122 g cm^3. This is very near to the U.S. standard atmosphere sea level air density value (0.001226 g cm^3) chosen by the U.S. Weather Service as representing average conditions over the United States at lat 40° N.

The drag coefficient, C_d, was considered to be a constant equal to 0.0013. Recent research (Davidson 1974) has demonstrated dependence of the drag coefficient both on atmospheric stability and on spectral properties of the ocean waves. However, a generally agreed-upon formulation does not appear well enough established at this time to warrant attempting to incorporate these effects in the computations of upwelling indices. The value 0.0013 is within the range of recent estimates for constant drag coefficients. DeLeonibus (1971) gives 0.0012 ± 0.0004 as characteristic of constant drag coefficients measured in neutrally stable conditions from the Argus Island tower off Bermuda. Denman and Miyake (1973) arrive at 0.00163 ± 0.00028, with no observed dependence on stability, from measurements at ocean station Papa. For our purposes, the absolute value is less important than intercomparability among various data sets. The value 0.0013 was used by Bakun, McLain, and Mayo (1974) in a climatological study, and is compatible with Bakun's (1973) discussion of the effect of monthly mean data on such computations.

Atmospheric Pressure Data

The choice of time scale (6-hr) and space scale (3-degree grid mesh) used in the calculations is largely dictated by the time and space distributions of the basic observational data. Meteorological observations are commonly made and collected via the international data network at 6-hr intervals. By convention, the times of observation are at 0000, 0600, 1200, and 1800 Greenwich mean time. The derived distributions are properly viewed as simulataneous instantaneous samplings rather than as averages over any time interval. Any averaging which may take place as part of a measurement procedure is intended merely as a means of filtering the very small-scale turbulent variations (having periods less than several minutes) in order to reveal the underlying larger scale patterns which are of interest.

A typical distribution of pressure observations over the northeast Pacific Ocean for a particular 6-hr sampling (Fig. 2) suggests futility in attempting to resolve details in the distribution on a scale much smaller than three degrees. On any scale much larger than this, however, important features of coastline trend are lost.

The method of atmospheric pressure analysis presently in use at FNWC is described by Holl and Mendenhall (1972). The method not only incorporates pressure reports but also accompanying wind reports in the form of equivalent pressure gradients. The result thus reflects a greater amount of observational data than would a separate analysis of either pressure or wind. Objective forecast procedures are applied to the previous analysis (6 h earlier) to supply additional information.

About 1% of the 6-hourly synoptic sea-level pressure

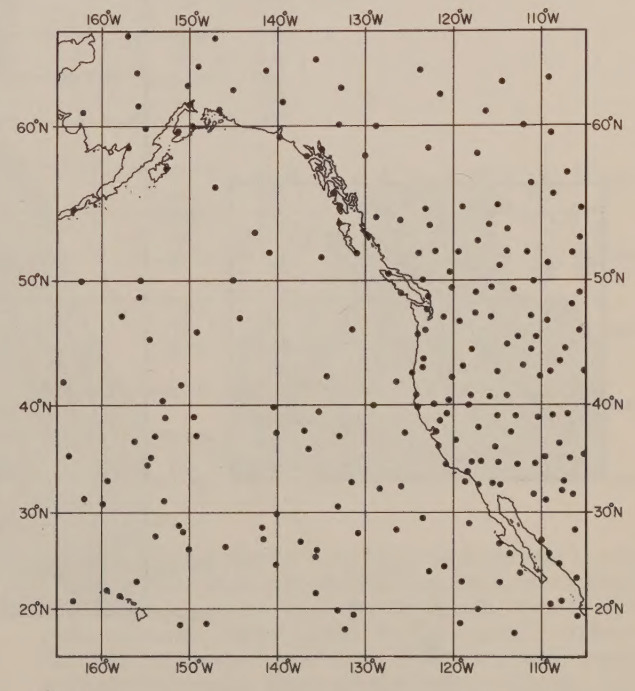

Figure 2.—Distribution of observations made at 1800 GMT, 5 January 1974, which arrived at the Fleet Numerical Weather Central in time for incorporation in the operational surface pressure analysis.

[2]Fofonoff, N.P. 1960. Transport Computations for the North Pacific Ocean-1958. Fish. Res. Board Can., Manuscr. Rep. (Oceanogr. Limnol.) 80, 81 p.

fields during the 7-yr period were missing from the FNWC archives. Certain of the missing fields had been rejected as erroneous. Some had been lost due to various equipment failures. As a result, some 113 of the daily averages reflect only three of the four daily synoptic periods, 15 contain two of four, and 2 contain only one. The days for which the daily averages represent less than all four synoptic samplings are listed in Table 2.

Distortion of Spatial Distributions

Bakun (1973) listed two sources of distortion in the spatial distributions of upwelling intensity indicated by the monthly indices presented therein. In that case monthly mean pressure data were used for the purpose of extending the series back through 1946 in a reasonably consistent manner. A major distorting effect was attributed to the use of mean data in conjunction with the nonlinear stress law (Equation (1)), resulting in an underestimate which depended on the variability of the wind field during the month. To partially compensate for underestimating the mean stress, a high value (0.0026) of the drag coefficent was used. Since the normal variability differs among different geographical areas, indicated upwelling at certain locations was amplified relative to other locations. The series presented here cover 7 yr, for which there are available a quite complete and internally consistent set of 6-hourly synoptic pressure analyses. Thus, there is no need to resort to mean data and that particular source of distortion is not encountered.

The second source of spatial distortion discussed by Bakun (1973) applies also in the present case. This involves a discontinuity in the onshore-offshore sea-level atmospheric pressure gradient caused by the coastal mountain ranges. In the interior valley of southern California, in particular, an intense localized thermal low develops during the summer. Because of the 3-degree mesh length of the computation grid, the effect of this low on the computed indices may be amplified relative to its actual effect on the wind stress field on the coastal side of the mountain range.

This effect can be illustrated by comparing the distribution of means by month and location of the 6-hourly upwelling indices to a corresponding summary of offshore Ekman transports produced from actual wind observations made by ships at sea. Figure 3(a) displays the annual cycle obtained by Bakun et al. (1974). The figure summarizes over 75,000 individual wind reports from the National Climatic Center's file of marine surface observations over the 20-yr period, 1948 through 1967, within the 1-degree squares (Figure 3(c)). The Ekman transport was computed for each wind observation and the offshore components, grouped by long-term month and by 1-degree square, were averaged. Figure 3(b) displays time-series isograms of the 7-yr (1967-73) mean monthly values of the 6-hourly upwelling indices. Some of the detail apparent in Figure 3(a) is smoothed out in Figure 3(b) because the upwelling indices are computed at 3-degree intervals using derivatives computed across a 6-degree length scale whereas the averages making up Figure 3(a) were formed at 1-degree intervals and contain data only from the surrounding 1-degree square. However, comparison of the two figures indicates a definite southward shift of the region of maximum magnitude of the upwelling indices. The indica-

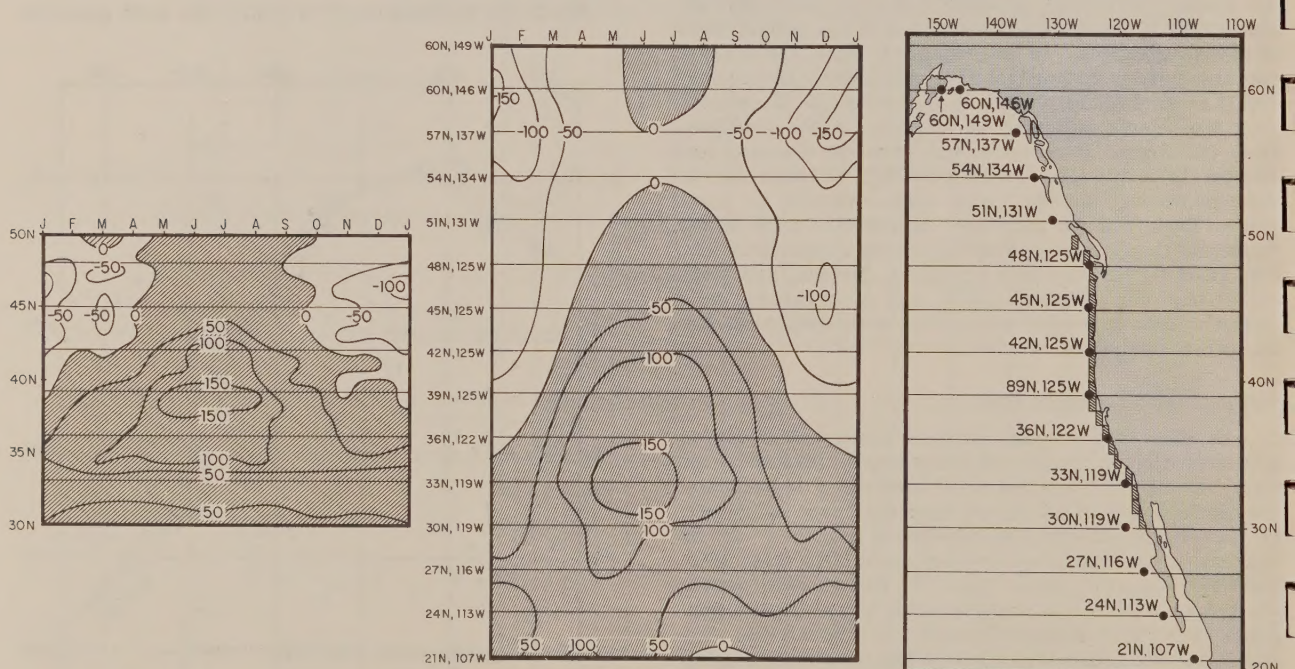

Figure 3. — Long-term annual cycle of offshore Ekman transport. Units are cubic meters per seond per 100 m of coastline. (a) Cycle formed by averaging transports computed from individual wind observations taken at sea within the one degree coastal squares indicated in Figure 3(c). (b) Cycle formed from 6-hourly upwelling indices averaged by month at the locations indicated in Figure 3(c). (c) Coastline drawing. Coastal squares for Figure 3(a) are shaded. Locations for Figure 3(b) are indicated by dots.

Table 2.—Dates for which daily averages represent fewer than the total four possible synoptic samplings. The times (Pacific Standard Time) of the missing samplings are indicated to the right of each date.

1967		
Jan 13, 10AM	Jun 28, 10AM	Oct 24, 4AM
Jan 23, 10AM	Aug 6, 4AM	Oct 28, 10PM
Jan 25, 10PM	Aug 7, 10AM	Nov 11, 4AM, 10AM
Feb 8, 10PM	Aug 19, 10PM	Nov 29, 4AM
Feb 10, 10AM	Aug 24, 4PM	Dec 9, 4PM
Feb 28, 10AM	Aug 29, 4PM	Dec 15, 4AM
Apr 17, 10PM	Sep 23, 10PM	Dec 30, 4AM
May 4, 4PM, 10PM		
1968		
Jan 19, 10PM	Mar 18, 4PM	Jul 14, 10PM
Feb 5, 10AM	Mar 26, 4AM	Sep 28, 4AM
Feb 8, 10PM	Mar 30, 10PM	Nov 29, 4AM
Feb 9, 10AM	May 31, 10PM	Dec 11, 4AM
Mar 9, 4AM, 10AM	Jul 1, 4PM, 10PM	Dec 18, 4AM
1969		
Jan 9, 10PM	Aug 9, 4AM, 10PM	Aug 22, 4PM
Mar 7, 4PM	Aug 10, 4AM, 10AM	Aug 23, 10AM
Apr 21, 10PM	Aug 11, 10PM	Aug 24, 10PM
Apr 30, 4PM	Aug 12, 10AM, 10PM	Aug 25, 4AM
Jul 12, 10AM	Aug 13, 10AM, 10PM	Sep 20, 10PM
Jul 27, 10PM	Aug 14, 10PM	Sep 23, 10AM
Jul 28, 10PM	Aug 15, 10AM, 10PM	Sep 30, 10PM
Jul 31, 10AM	Aug 16, 4PM	Nov 12, 10AM
Aug 1, 10AM	Aug 17, 4AM	Nov 13, 10AM
Aug 4, 4PM	Aug 18, 4AM	Nov 29, 10PM
Aug 5, 4AM, 10PM	Aug 19, 10AM, 4PM, 10PM	Dec 2, 10AM
Aug 6, 4AM, 4PM	Aug 20, 10PM	Dec 3, 10AM
Aug 7, 4PM	Aug 21, 4AM, 10AM, 10PM	Dec 10, 10AM
1970		
Jan 4, 10AM	Jul 14, 10AM	Oct 27, 4AM
Jan 10, 10PM	Jul 30, 10AM	Oct 29, 10PM
Jan 31, 10PM	Aug 28, 10PM	Nov 10, 10AM
Mar 15, 10AM	Aug 29, 10PM	Nov 18, 10AM, 10PM
Mar 17, 10AM	Aug 30, 10PM	Nov 25, 10PM
Mar 25, 4AM	Sep 1, 10PM	Nov 27, 10PM
Mar 28, 10PM	Sep 26, 10AM	Nov 30, 10AM
Apr 5, 10PM	Oct 6, 10PM	Dec 4, 10AM
Jun 15, 10AM	Oct 18, 4AM	Dec 7, 10AM
Jun 30, 10PM	Oct 24, 10PM	Dec 22, 10AM
1971		
Jan 15, 10PM	Apr 5, 10AM	Aug 29, 10PM
Feb 8, 10AM	Apr 9, 10PM	Oct 25, 10AM
Feb 25, 10PM	Jun 5, 4PM	Dec 24, 4AM, 10AM
Mar 2, 4AM	Jul 13, 10AM	
1972		
Feb 17, 10AM	Oct 14, 4PM	Oct 17, 10PM
Mar 4, 10AM	Oct 15, 10PM	Dec 4, 10AM
Mar 7, 4PM		
1973		
May 1, 10PM	May 22, 10AM	Nov 29, 10AM
May 2, 10PM	Nov 15, 4PM	Dec 23, 10AM
May 10, 10AM	Nov 27, 10AM	

tion is that although the 6-hourly upwelling indices may be satisfactory indicators of temporal variations at individual locations, they give a distorted picture of spatial variations.

DISCUSSION

A conspicuous feature of the charts in the appendix is the apparent variability of the upwelling process. A substantial component of this variability is the seasonal cycle, the major features of which appear to be repeated from year to year. Clearly evident on a much shorter time scale, characteristically of one to several days, are individual "events" which seem randomly superimposed on the seasonal variation. Between these extremes of scale lie features which appear as clusters of events. These are the subject of further study and will be reported elsewhere (e.g., Bakun 1974) as will the diurnal periodicities which exist in the 6-hourly data but do not appear in the daily means presented here.

Table 3 gives the 7-yr mean values by month of the daily mean indices. Table 4 gives the corresponding mean values of the weekly mean indices. The values in Tables 3 and 4 are, of course, nearly identical, differing only in that a given weekly mean may overlap two consecutive months. Figure 3(b) is well representative of both sets. The southern portion is primarily an area of positive mean values of the indices indicating upwelling conditions on the average throughout the year. The northern portion is primarily a region of average downwelling (negative indices). Maximum mean

Table 3.—Seven-year (1967-73) composite monthly averages of daily means of 6-hourly upwelling indices. Units are cubic meters per second per 100 m of coastline.

Lat.	Long.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
60°N,	149°W	-145	-89	-45	-12	-5	9	7	3	-14	-32	-66	-95
60°N,	146°W	-163	-104	-46	-13	-5	9	7	1	-18	-38	-78	-120
57°N,	137°W	-150	-138	-64	-39	-26	0	-4	-19	-41	-77	-108	-164
54°N,	134°W	-64	-103	-49	-38	-27	-2	-4	-19	-34	-72	-86	-103
51°N,	131°W	-42	-68	-33	-11	-4	13	14	5	-5	-42	-64	-72
48°N,	125°W	-86	-74	-39	-2	20	25	34	24	1	-45	-84	-115
45°N,	125°W	-90	-69	-36	8	36	42	58	42	16	-27	-72	-109
42°N,	125°W	-80	-54	-8	53	85	87	102	77	44	5	-49	-90
39°N,	125°W	-42	-35	33	101	123	133	138	115	68	35	-15	-37
36°N,	122°W	-8	4	66	124	146	146	134	116	70	40	8	5
33°N,	119°W	11	31	91	140	181	190	155	131	101	56	24	21
30°N,	119°W	40	46	83	98	109	107	88	90	77	64	45	53
27°N,	116°W	55	56	88	99	102	91	71	67	77	65	60	58
24°N,	113°W	37	36	66	81	81	68	38	30	51	40	38	38
21°N,	107°W	36	47	85	113	80	66	11	-6	-11	9	10	23

Table 4.—Seven-year (1967-73) composite monthly averages of weekly means of 6-hourly upwelling indices. Where a given weekly value overlaps two different months, it is assigned to the month wherein falls the midpoint (Wednesday) of the week. Units are cubic meters per second per 100 m of coastline.

Lat.	Long.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
60°N,	149°W	-144	-88	-49	-11	-4	8	7	3	-14	-33	-64	-95
60°N,	146°W	-162	-103	-51	-11	-4	8	7	1	-18	-39	-77	-120
57°N,	137°W	-151	-137	-68	-38	-24	-1	-4	-20	-40	-79	-109	-161
54°N,	134°W	-64	-106	-51	-36	-26	-2	-4	-21	-33	-72	-87	-101
51°N,	131°W	-44	-72	-33	-10	-4	13	15	4	-6	-42	-65	-67
48°N,	125°W	-98	-71	-40	-2	20	27	34	24	0	-43	-87	-105
45°N,	125°W	-100	-61	-39	9	36	44	56	42	15	-26	-76	-101
42°N,	125°W	-89	-47	-11	55	83	90	101	77	43	5	-52	-84
39°N,	125°W	-49	-30	31	104	122	135	138	115	67	35	-16	-33
36°N,	122°W	-11	5	64	128	142	147	136	115	71	41	7	7
33°N,	119°W	9	32	90	144	176	195	154	127	103	60	21	22
30°N,	119°W	40	45	84	101	105	108	89	86	82	63	46	54
27°N,	116°W	55	54	91	101	99	93	71	63	81	64	59	59
24°N,	113°W	37	35	68	80	80	69	37	29	52	38	39	38
21°N,	107°W	34	50	83	114	80	67	11	-6	-10	7	9	23

seasonal values appear earliest to the south, i.e., in April at lat. 21°N, and appear progressively later to the north. Maxima are in May off southern California and in June and July from central California to the northern extremity of the Gulf of Alaska. Minimum mean seasonal values appear during winter as strong negatives (intense downwelling) in the north and as weak positives (relaxed upwelling) toward the south. At the southern extreme the seasonal minimum is in the fall, indicating downwelling conditions on the average during September and October at lat. 21°N. In general, the timing and duration of the upwelling seasons indicated by these series differ very little from those reported by Bakun (1973).

The seasonal distributions of variance in the daily and weekly values are tabulated in terms of standard deviations in Tables 5 and 6. High variances in the daily means are indicated during the winter downwelling season in the Gulf of Alaska. The coast of northern California appears as a region of high variability throughout the year. The most stable situation appears to be the summer season in the north. The distributions of variance of the weekly values tend to be similar to those of the daily values. However, the numerical values are markedly lower, indicating major contributions by shorter term fluctuations in all seasons and locations.

As mentioned in the introduction, the very short-term variability may not be of great concern in many applications. Many of the processes involved are probably sufficiently linear that averages over weekly periods and perhaps monthly periods will provide relevant information. The daily and weekly indices presented in this report, and the monthly, quarterly, and yearly indices presented by Bakun (1973) are intended to provide a choice of scales to users, which may enhance the usefulness and ease of application of this information to fishery problems.

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Table 5.—Standard deviations of daily means of 6-hourly upwelling indices grouped by long-term (1967-73) month. Units are cubic meters per second per 100 m of coastline.

Lat. Long.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
60°N, 149°W	133	95	72	45	25	17	14	26	38	57	90	122
60°N, 146°W	153	109	72	41	27	17	14	24	42	60	94	139
57°N, 137°W	141	141	98	68	50	33	26	40	72	106	123	164
54°N, 134°W	132	121	97	86	67	55	40	51	74	118	130	147
51°N, 131°W	139	107	101	93	72	59	36	41	57	119	137	154
48°N, 125°W	146	106	97	68	45	39	33	27	39	90	118	181
45°N, 125°W	147	103	100	64	52	44	42	35	42	79	102	168
42°N, 125°W	160	112	119	92	80	70	60	56	58	75	98	171
39°N, 125°W	142	115	113	121	103	96	84	86	67	71	92	135
36°N, 122°W	75	81	80	93	92	74	63	59	53	57	59	77
33°N, 119°W	56	63	71	90	98	76	61	55	66	63	59	66
30°N, 119°W	51	57	56	63	60	53	49	54	51	47	55	55
27°N, 116°W	44	51	47	57	51	47	56	55	54	44	56	43
24°N, 113°W	38	41	46	48	41	49	51	54	57	54	39	37
21°N, 107°W	59	63	80	103	72	57	41	57	84	52	66	54

Table 6. — Standard deviations of weekly means of 6-hourly upwelling indices grouped by long-term (1967-73) month. Were a given weekly value overlaps two different months, it is assigned to the month werein falls the midpoint (Wednesday) of the week. Units are cubic meters per second per 100 m of coastline.

Lat.	Long.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
60°N,	149°W	85	56	54	25	13	9	7	15	22	35	56	78
60°N,	146°W	104	60	52	23	14	8	7	14	23	38	58	88
57°N,	137°W	78	70	56	37	26	19	16	22	42	65	71	87
54°N,	134°W	67	67	55	50	39	35	29	21	47	79	84	78
51°N,	131°W	80	61	56	53	43	39	30	27	35	78	79	85
48°N,	125°W	105	57	55	46	29	25	22	19	24	57	66	88
45°N,	125°W	101	52	63	45	34	28	29	26	30	58	58	88
42°N,	125°W	106	59	77	66	49	39	40	40	38	58	57	98
39°N,	125°W	95	64	73	91	64	54	60	64	40	55	58	87
36°N,	122°W	43	53	46	63	47	46	38	43	32	37	30	50
33°N,	119°W	28	40	36	46	49	49	31	41	43	37	32	37
30°N,	119°W	31	40	34	37	34	30	30	37	35	27	36	37
27°N,	116°W	25	30	29	28	31	21	21	37	27	22	37	27
24°N,	113°W	22	24	28	26	23	27	22	37	34	33	29	22
21°N,	107°W	36	33	41	65	49	38	20	31	49	31	43	29

APPENDIX

Tabulation and Plots of Daily and Weekly Upwelling Indices

The following pages display daily and weekly means of 6-hourly upwelling index computations at 15 near coastal locations (see text Fig. 1) over the 7-yr period, 1967-73. The display for each location occupies seven consecutive pages, one page per year.

The left column indicates the calendar date of the Sunday which begins a particular week. The seven columns to the right contain the daily averages progressing from Sunday through the following Saturday. Each daily average summarizes the synoptic computations at 4 AM, 10 AM, 4 PM, and 10 PM Pacific Standard Time. The average of the seven daily mean values is listed in the right column of numbers.

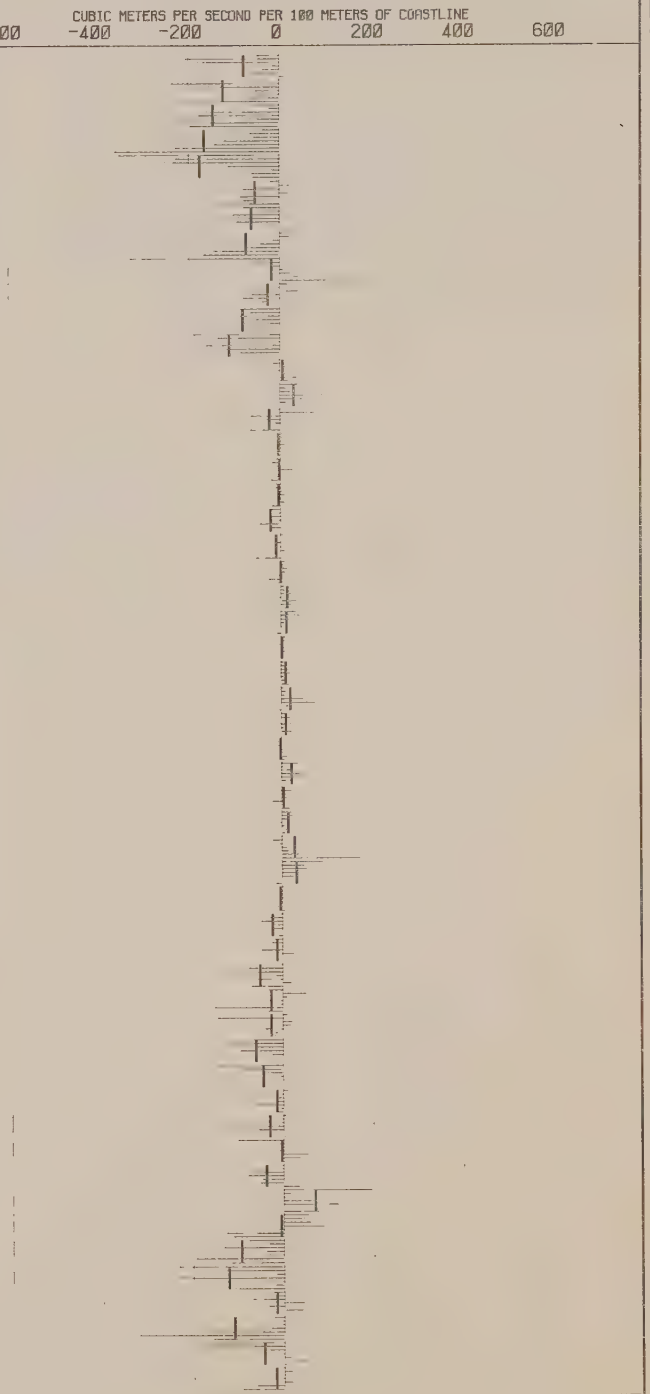
The units are metric tons per second per 100 m of coastline. These units may be thought of as the average amount (metric tons or cubic meters) of water upwelled throught the bottom of the Ekman layer each second along each 100 m of a straight line directed along the dominant trend of the coast on a scale of about 200 miles. Because of uncertainties in some of the constants employed and for other reasons outlined in this report, it may be well to consider these indices as indicative of relative fluctuations rather than as quantitative measures of absolute magnitude.

To the right of each weekly row of numerical values, the daily values are plotted as horizontal lines, and the weekly means as vertical bars. Where a given value is so large that the plotted line would extend off the graph, truncation of the line is indicated by an "X".

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 60N, 149W

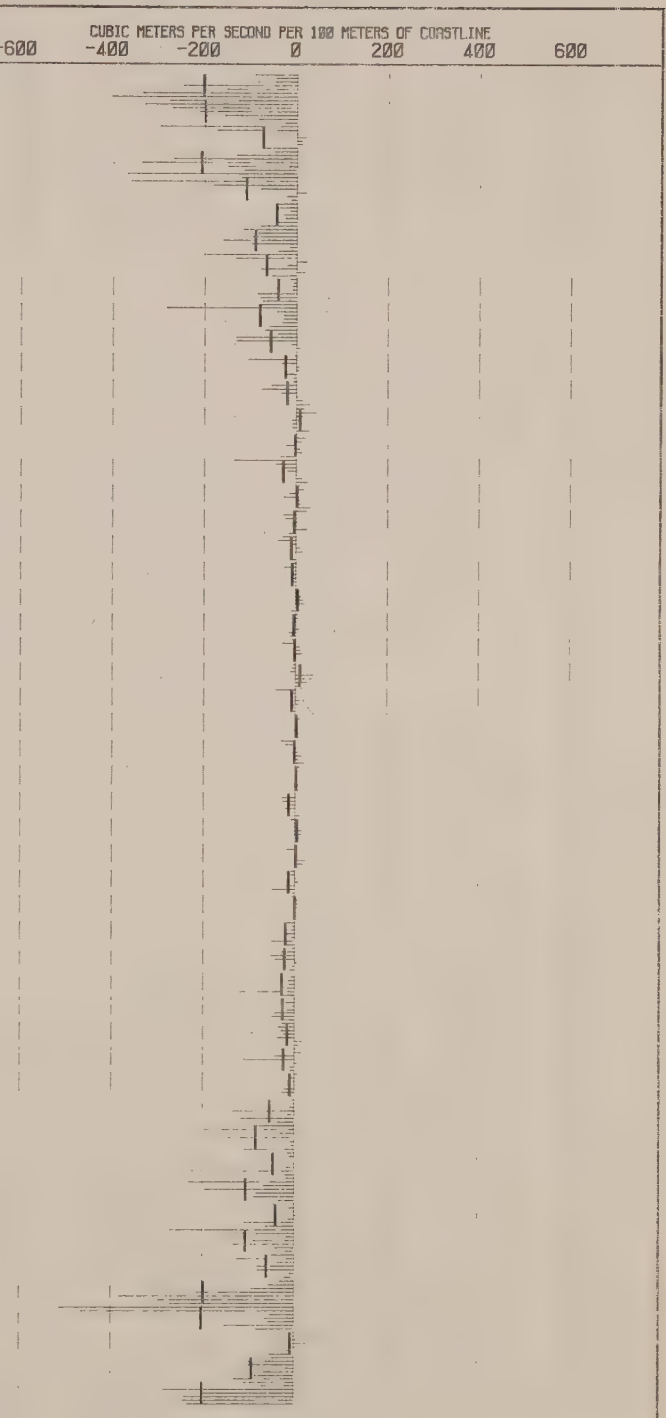
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	-49	-205	-180	-15	-36	-57	11	-76
8 JAN	2	-260	-195	-51	-46	-77	-227	-122
15 JAN	-60	-22	-169	-177	-82	-297	-197	-144
22 JAN	-116	-64	-56	-122	-142	-230	-409	-163
29 JAN	-354	-228	-278	-112	-63	-131	-58	-175
5 FEB	-19	25	-79	20	-86	-78	-152	-53
12 FEB	-81	-40	-103	-106	-95	-26	32	-60
19 FEB	6	22	-40	-42	-72	-207	-168	-72
26 FEB	-330	-55	-14	7	43	56	188	-15
5 MAR	16	-13	39	-80	-81	-46	-6	-25
12 MAR	-111	-65	-92	-85	-84	-72	-51	-80
19 MAR	-191	-143	-18	-161	-162	-86	-10	-110
26 MAR	-98	-14	9	-4	42	36	84	8
2 APR	37	14	21	114	49	11	-25	32
9 APR	-2	82	-82	-97	-11	23	-68	-22
16 APR	8	14	-3	11	-1	-39	-7	-2
23 APR	-9	-25	-8	25	47	-11	-20	-0
30 APR	-10	-10	5	10	-4	7	-18	-3
7 MAY	-20	-17	-17	-11	-65	-18	2	-21
14 MAY	6	1	-12	-2	8	-1	-55	-8
21 MAY	10	20	17	8	-4	-27	-16	1
28 MAY	5	16	25	-12	36	25	12	15
4 JUN	34	43	26	7	2	-3	-7	14
11 JUN	8	5	-2	6	11	4	-0	5
18 JUN	3	9	24	20	3	10	18	13
25 JUN	5	8	6	50	76	14	-4	22
2 JUL	8	21	0	22	4	22	5	12
9 JUL	-4	-15	-13	1	5	15	6	-1
16 JUL	39	3	17	47	45	8	15	25
23 JUL	3	21	9	11	-21	-1	17	6
30 JUL	30	49	17	-7	3	10	6	15
6 AUG	-2	-20	-3	11	14	35	174	30
13 AUG	92	49	56	38	25	-10	-15	34
20 AUG	4	-6	-1	1	-6	-8	5	-2
27 AUG	-3	-47	-47	-16	-19	1	-7	-20
3 SEP	-31	-22	-2	-47	26	6	1	-10
10 SEP	-2	-84	-134	-15	-53	17	-69	-49
17 SEP	-30	51	7	-3	-15	-150	-31	-25
24 SEP	14	-145	20	17	-40	-16	-19	-24
1 OCT	-71	-125	-60	-94	-33	-9	-15	-58
8 OCT	-144	-86	-36	-4	1	-2	-18	-41
15 OCT	12	-1	-12	-10	-65	-4	-11	-13
22 OCT	5	-3	-8	-137	-55	-5	4	-28
29 OCT	-99	-8	1	-25	71	37	3	-3
5 NOV	-8	-24	-74	-82	-47	-53	34	-36
12 NOV	194	16	2	107	120	-10	78	72
19 NOV	56	47	59	90	-42	-126	-114	-4
26 NOV	-82	-32	-193	-37	-48	-193	-116	-92
3 DEC	-232	-147	-15	-279	-40	-19	-110	-119
10 DEC	-27	-16	-99	44	-35	40	-4	-14
17 DEC	-22	-6	-21	-57	-168	-320	-157	-107
24 DEC	-142	-107	-31	-2	16	50	3	-42
31 DEC	-8	15	25	-13	18	-60	-92	-16



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 60N, 149W

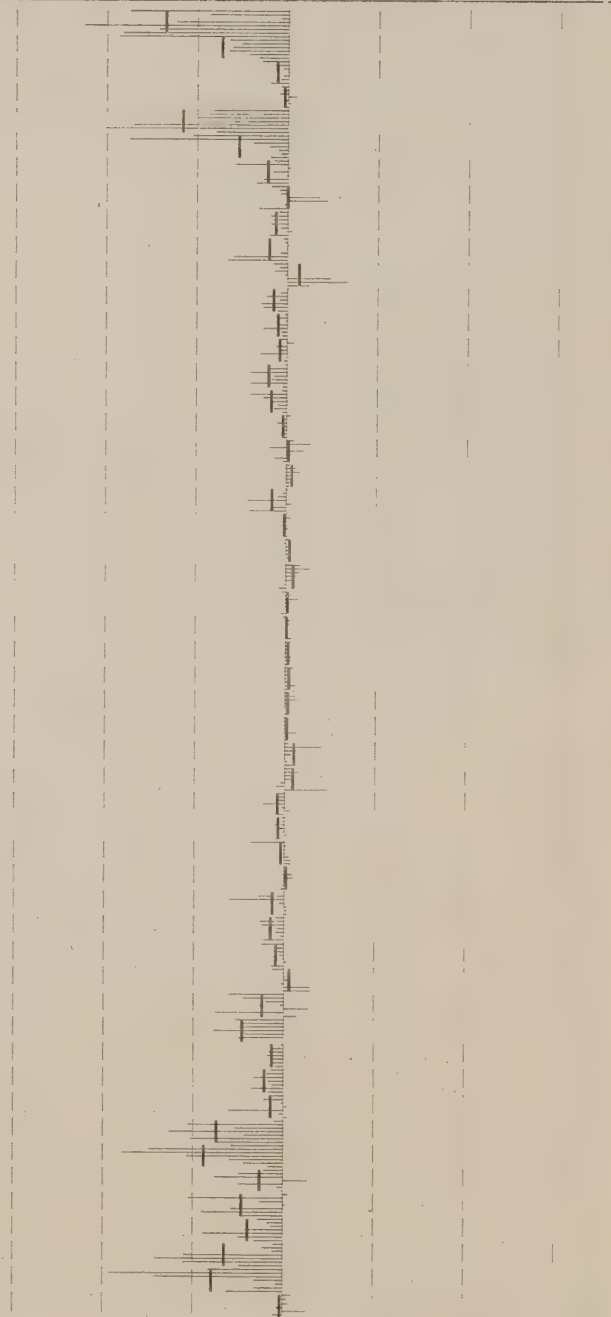
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-92	-46	-109	-247	-154	-355	-405	-201
14 JAN	-278	-332	-272	-212	-157	-101	-29	-197
21 JAN	-297	-174	1	20	10	13	-73	-71
28 JAN	-59	-133	-268	-346	-150	-116	-370	-206
4 FEB	-119	-360	-182	-77	20	-23	-12	-108
11 FEB	-45	-36	-14	-28	-23	-44	-101	-42
18 FEB	-117	-86	-96	-160	-98	-13	-41	-87
25 FEB	-202	-132	21	-21	-77	17	-54	-64
3 MAR	-11	-6	-9	-8	-84	-78	-73	-38
10 MAR	-81	-282	-41	-30	-28	-30	-57	-78
17 MAR	-67	-41	-131	-129	-10	6	1	-53
24 MAR	-3	-105	-30	5	4	-23	-6	-23
31 MAR	-6	-54	-76	-32	3	13	27	-18
7 APR	16	42	13	-9	-8	-7	27	11
14 APR	-1	21	14	-23	8	11	-34	-1
21 APR	-133	-44	-27	-18	-0	12	23	-27
28 APR	5	15	-14	-25	6	9	30	4
5 MAY	21	-25	-23	3	-3	22	-14	-3
12 MAY	-29	-39	-5	7	14	-3	-5	-8
19 MAY	-6	-24	-3	-6	-4	-2	1	-6
26 MAY	-1	2	11	14	18	2	-7	5
2 JUN	3	4	-0	-1	5	-15	-9	-2
9 JUN	-6	-28	7	10	15	1	-2	-0
16 JUN	-4	-5	-10	38	34	23	8	12
23 JUN	-41	-9	2	7	7	-1	-6	-6
30 JUN	2	10	3	1	-1	5	6	4
7 JUL	-31	-21	2	5	12	6	20	-1
14 JUL	8	1	0	-0	2	3	6	3
21 JUL	-0	-28	-27	-11	-20	-1	9	-11
28 JUL	-7	3	4	14	12	9	3	5
4 AUG	0	-16	1	5	22	17	1	4
11 AUG	-9	-12	3	5	-17	-48	-4	-12
18 AUG	-4	6	5	4	1	0	-2	1
25 AUG	-20	-4	-7	-22	-7	-50	-19	-18
1 SEP	-6	-28	-51	-42	3	-3	-9	-19
8 SEP	0	-7	-13	-11	-14	-119	-24	-27
15 SEP	-0	-22	-7	-23	-41	-48	-25	-24
22 SEP	-27	-33	-29	-22	-36	39	8	-14
29 SEP	2	14	-43	-110	3	-7	-8	-21
6 OCT	7	-6	-2	-1	-23	-26	-9	-9
13 OCT	-4	-3	-10	-135	-54	-116	-35	-51
20 OCT	-87	-196	-30	-145	-9	-6	-100	-83
27 OCT	-13	-22	1	-0	-30	-227	-20	-45
3 NOV	-31	-230	-67	-193	-82	-88	-35	-104
10 NOV	-59	-11	3	5	-28	-108	-63	-37
17 NOV	-276	-141	-35	-87	-132	-43	-17	-104
24 NOV	-49	-124	-36	-80	-81	-10	-18	-57
1 DEC	-32	-55	-92	-220	-392	-296	-285	-196
8 DEC	-533	-464	-52	-61	-56	-153	-82	-200
15 DEC	15	30	4	26	4	-68	-52	-6
22 DEC	-67	-97	-99	-73	-76	-85	-129	-90
29 DEC	-108	-71	-285	-201	-246	-242	-233	-198



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 60N, 149W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-349	-171	-17	-246	-447	-284	-363	-268
12 JAN	-372	-130	-101	-122	-129	-86	-64	-144
19 JAN	-56	-29	-10	9	-10	-16	-39	-22
26 JAN	-14	-12	-20	17	-5	5	-9	-6
2 FEB	-163	-222	-200	-117	-344	-409	-158	-229
9 FEB	-207	-348	-77	-41	-20	-13	-38	-106
16 FEB	-29	-114	4	-32	-2	-52	-68	-42
23 FEB	-34	-19	-13	69	86	-6	-63	3
2 MAR	-18	-38	-30	-36	-15	9	-41	-24
9 MAR	-7	-5	1	-0	-14	-117	-129	-39
16 MAR	-29	-16	-26	-3	95	130	46	28
23 MAR	3	-14	-44	-16	-56	-53	-21	-29
30 MAR	-4	-23	-2	-17	-55	-12	-10	-17
6 APR	-12	13	-22	-18	-58	1	-7	-15
13 APR	-3	-36	-80	-29	-32	-78	-7	-38
20 APR	-11	-78	-52	-32	-17	-26	-9	-32
27 APR	9	-3	-20	-6	-5	-5	-6	-5
4 MAY	16	51	-35	36	7	-28	-6	6
11 MAY	7	22	30	14	13	8	3	14
18 MAY	2	-6	-18	-85	9	-30	-80	-30
25 MAY	-1	9	-9	-14	5	-8	2	-2
1 JUN	6	-8	6	27	24	7	2	9
8 JUN	33	51	30	21	13	-2	-13	19
15 JUN	-8	13	28	8	5	5	-11	6
22 JUN	-4	7	6	2	1	9	11	4
29 JUN	9	6	8	8	12	10	4	8
6 JUL	15	8	5	-1	7	29	7	9
13 JUL	6	21	32	2	0	-1	2	9
20 JUL	3	3	5	4	24	7	2	7
27 JUL	7	80	24	11	-0	4	22	21
3 AUG	14	31	14	14	-7	-19	93	20
10 AUG	-19	-15	-13	-46	-5	13	-16	-15
17 AUG	-7	-8	-24	-16	-2	3	-30	-12
24 AUG	-73	2	-0	-0	8	14	12	-5
31 AUG	3	2	16	24	5	-3	-6	6
7 SEP	-0	-55	-120	-11	3	3	5	-25
14 SEP	-16	-52	-48	-14	-19	-6	-44	-28
21 SEP	-49	-14	-11	-9	-3	4	-27	-16
28 SEP	-24	-2	2	10	-5	57	58	14
5 OCT	-121	-89	-38	-6	54	-149	28	-46
12 OCT	-106	-89	-97	-155	-86	-98	0	-90
19 OCT	-4	-26	-30	-35	-27	-25	-15	-23
26 OCT	-25	-36	-67	-31	-24	-70	-31	-41
2 NOV	-21	-42	-4	8	-120	-7	7	-26
9 NOV	-19	-210	-106	-252	-85	-204	-149	-146
16 NOV	-114	-296	-356	-212	-117	-87	-33	-174
23 NOV	-43	-88	-150	52	-87	-13	-1	-50
30 NOV	10	-208	-50	4	-114	-179	-92	-90
7 DEC	-56	-35	-27	-82	-176	-99	-63	-77
14 DEC	-19	-44	-23	-219	-283	-219	-95	-129
21 DEC	-165	-384	-285	-63	-15	-63	-124	-157
28 DEC	18	7	12	-11	49	-20	-81	-4



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

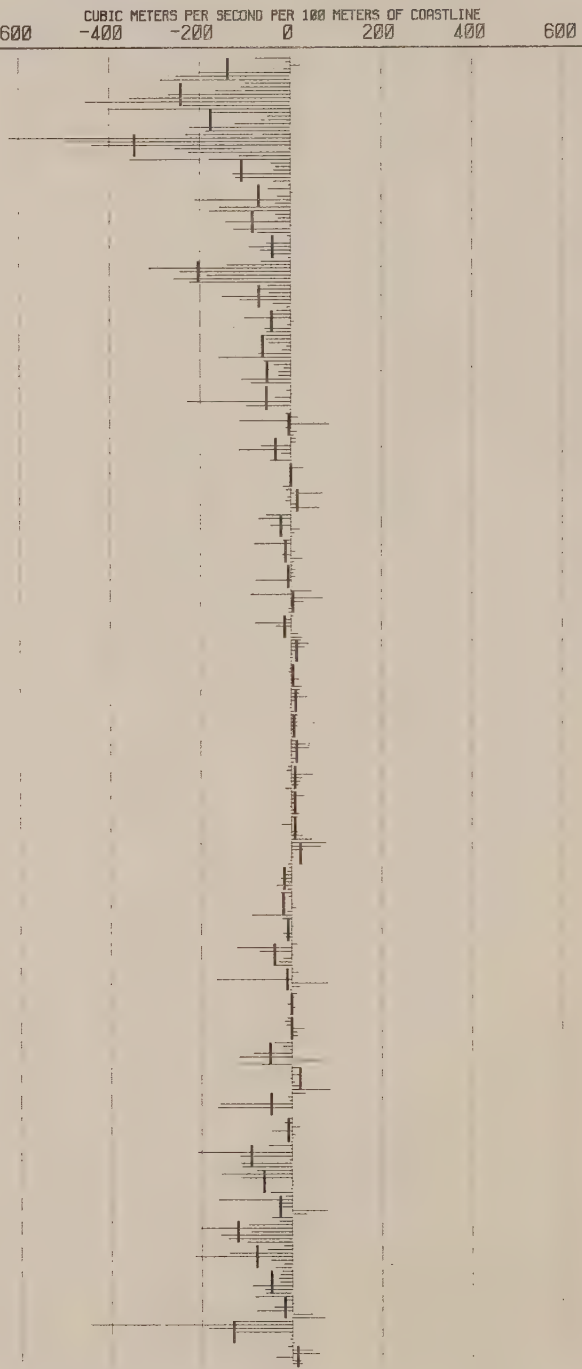
DURING 1970 AT 60N, 149W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	-224	-289	-185	-61	-79	-81	-128	-150
11 JAN	-238	-318	-377	-274	-196	-66	-114	-226
18 JAN	-219	-324	-334	-162	-112	-116	-133	-200
25 JAN	-110	-47	-3	-39	-46	-250	-31	-75
1 FEB	-188	-436	-10	-51	-58	-48	-31	-117
8 FEB	-18	-131	-122	-26	-119	-135	-143	-99
15 FEB	-34	-30	-140	-114	-28	-5	-135	-69
22 FEB	-105	-14	119	-3	-19	-4	-10	-5
1 MAR	-9	-40	-55	-72	-74	-3	3	-36
8 MAR	-60	-60	-119	-110	-83	-47	-99	-82
15 MAR	-38	-1	-92	56	9	1	-10	-11
22 MAR	-25	2	-45	6	47	30	79	13
29 MAR	-6	66	35	4	-30	-21	-2	7
5 APR	-61	-32	-38	-15	-26	16	27	-18
12 APR	66	18	-0	8	16	13	5	18
19 APR	23	78	70	36	3	-44	-35	19
26 APR	3	8	3	22	3	4	3	7
3 MAY	-3	-11	-10	-97	-9	-10	-16	-22
10 MAY	-0	0	-0	-4	-7	3	1	-1
17 MAY	2	-2	-7	-39	-3	13	-28	-9
24 MAY	-59	16	18	4	7	6	-10	-3
31 MAY	5	2	-4	2	19	-1	-10	2
7 JUN	8	4	4	39	52	-14	-7	12
14 JUN	21	16	15	59	57	30	9	30
21 JUN	11	5	9	-6	-2	3	10	5
28 JUN	11	-4	-15	-8	-0	-6	7	-2
5 JUL	0	-5	14	21	19	38	48	19
12 JUL	16	7	12	-1	2	-11	1	4
19 JUL	8	4	-3	-1	1	-0	6	2
26 JUL	11	11	12	68	33	-3	15	21
2 AUG	15	-35	5	53	18	34	4	13
9 AUG	0	-4	-2	14	-14	-7	22	1
16 AUG	13	-6	-1	18	30	34	36	18
23 AUG	12	4	-3	-3	-16	-42	-1	-7
30 AUG	5	-1	-7	-4	13	40	16	9
6 SEP	-4	-16	-44	-24	-19	-21	8	-17
13 SEP	6	2	-10	-26	-0	-8	-11	-7
20 SEP	-7	-23	-20	-55	-149	-35	-47	-48
27 SEP	-31	-0	-1	-5	-1	-29	-21	-13
4 OCT	-23	-14	-1	12	4	-27	10	-6
11 OCT	56	71	63	-2	-5	-11	-33	20
18 OCT	-55	-91	-101	-82	-175	-123	-40	-95
25 OCT	-156	-340	-42	24	-4	-188	-58	-109
1 NOV	-28	-6	-23	-38	-48	-60	-102	-43
8 NOV	-130	-172	-301	-145	-74	-100	-72	-142
15 NOV	-83	-73	0	-0	-17	4	-77	-35
22 NOV	-32	-119	-27	-43	-68	3	-20	-44
29 NOV	-357	-232	-237	-231	-385	-438	-334	-316
6 DEC	-188	-196	-131	-169	-22	-150	-175	-147
13 DEC	-73	-6	-78	-68	-33	-44	-92	-56
20 DEC	9	21	20	201	87	33	-115	37
27 DEC	-155	-349	-188	-173	-81	-36	-384	-195

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 60N, 149W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	-88	-10	21	-98	-201	-284	-285	-135
10 JAN	-100	-108	-165	-268	-356	-453	-236	-241
17 JAN	-403	-173	-49	-64	-123	-222	-187	-174
24 JAN	-236	-639	-496	-437	-253	-223	-112	-342
31 JAN	-353	-43	-32	-36	-127	-120	-35	-107
7 FEB	-4	-49	5	-28	-211	-31	-155	-68
14 FEB	-177	-33	-27	-141	1	-123	-73	-82
21 FEB	-7	0	-52	-89	-66	-42	-3	-37
28 FEB	-65	-140	-312	-244	-183	-256	-221	-203
7 MAR	-49	-65	-47	-150	-111	-39	-9	-67
14 MAR	-34	-41	-99	7	-6	-56	-53	-40
21 MAR	-57	-55	-48	-8	-18	-71	-157	-59
28 MAR	-59	-35	-14	-26	-26	-108	-87	-51
4 APR	-0	-7	1	-34	-228	-98	-2	-53
11 APR	-10	14	-112	84	-9	13	5	-2
18 APR	10	10	-63	-113	-19	0	-44	-31
25 APR	2	25	2	2	-3	0	-15	2
2 MAY	-10	71	-7	-11	13	61	1	17
9 MAY	-53	-69	1	-44	19	6	1	-20
16 MAY	-16	-79	-1	7	-17	25	5	-11
23 MAY	3	9	3	9	-79	-1	21	-5
30 MAY	44	-88	68	27	1	-5	-4	6
6 JUN	3	-11	-79	-31	1	13	24	-11
13 JUN	20	37	27	9	1	3	-0	14
20 JUN	-0	-1	-4	5	15	6	21	6
27 JUN	19	16	34	6	-1	-1	4	11
4 JUL	13	10	11	12	3	0	6	8
11 JUL	8	29	38	10	-0	13	5	15
18 JUL	-6	-11	45	22	18	14	-12	10
25 JUL	6	27	9	3	-1	10	16	10
1 AUG	12	0	-21	1	12	24	45	10
8 AUG	75	63	23	2	4	-3	-6	23
15 AUG	-5	-8	-18	-23	-9	-33	-8	-15
22 AUG	-22	-6	-1	2	8	-8	-86	-16
29 AUG	-20	-1	3	1	-19	-12	-0	-7
5 SEP	13	-119	-70	2	-17	-28	-33	-36
12 SEP	1	14	2	-165	81	19	-4	-8
19 SEP	9	5	-1	-9	6	1	-3	1
26 SEP	-13	-16	-11	27	12	12	-1	2
3 OCT	-38	-19	-19	-84	-116	71	-113	-45
10 OCT	14	-3	19	-3	6	17	84	19
17 OCT	27	-7	-8	-159	-163	0	2	-44
24 OCT	-5	-16	16	-44	5	1	-1	-6
31 OCT	-53	-3	-208	-115	-7	-115	-110	-87
7 NOV	-106	-155	-113	1	3	-3	-48	-60
14 NOV	-15	-162	-29	-30	79	33	-45	-24
21 NOV	-29	-98	-201	-91	-158	-148	-100	-118
28 NOV	-17	-54	-137	-213	-47	-18	-42	-76
5 DEC	-21	-26	-30	-25	-88	-59	-57	-44
12 DEC	-83	-17	1	-41	-79	44	72	-15
19 DEC	-125	-451	-191	-125	-2	-5	4	-128
26 DEC	-10	45	59	-36	18	23	-0	14



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

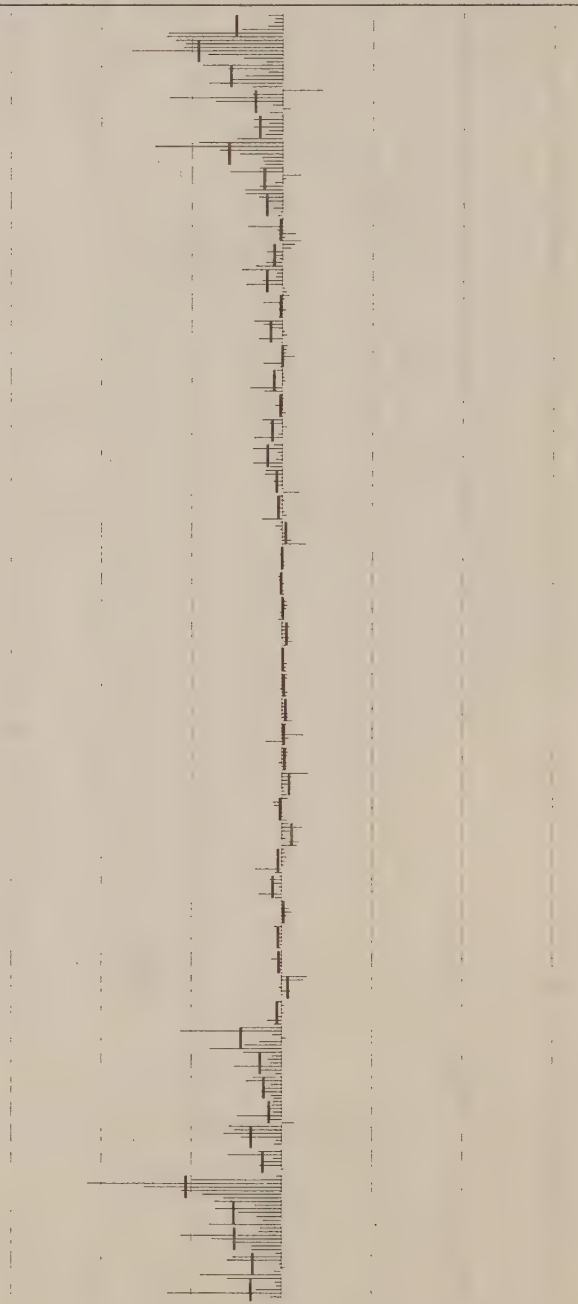
DURING 1972 AT 60N, 149W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	-94	-16	-30	-13	-35	-51	-159	-57
9 JAN	-158	-149	-115	-128	-217	-344	-408	-217
16 JAN	-658	-303	-231	-210	-189	-116	-150	-265
23 JAN	-145	-64	-32	37	42	89	47	-4
30 JAN	18	-1	-35	-72	-218	-267	-275	-121
6 FEB	-265	-133	-218	-3	-136	-80	-42	-125
13 FEB	-56	-195	-89	-189	-279	-345	-296	-207
20 FEB	-250	-294	-92	-54	-240	-173	-62	-167
27 FEB	-139	-199	-122	-296	-175	-148	-119	-171
5 MAR	-171	-140	-171	-211	-219	-75	-164	-165
12 MAR	-224	-16	-3	-118	24	-132	-181	-93
19 MAR	-35	-2	-10	-63	-48	19	46	-13
26 MAR	35	39	29	-27	-112	-94	-17	-21
2 APR	-33	5	-58	-230	-205	-115	-48	-98
9 APR	-1	-15	4	46	44	-0	-43	5
16 APR	-7	65	77	-8	-34	-17	-32	6
23 APR	-32	-4	-1	-19	-27	0	-2	-12
30 APR	0	8	-41	-39	-18	-35	11	-16
7 MAY	-2	-4	-7	-5	-8	1	18	-1
14 MAY	10	-6	8	25	32	47	24	20
21 MAY	21	10	13	-56	-17	-23	8	-6
28 MAY	22	-10	-9	-6	25	46	-4	9
4 JUN	-5	-3	0	-2	16	8	-17	-0
11 JUN	-11	3	1	19	24	2	9	7
18 JUN	25	16	7	8	22	39	12	18
25 JUN	13	7	6	7	21	17	3	11
2 JUL	-1	-2	-0	-1	-1	4	9	1
9 JUL	13	2	0	2	6	10	14	7
16 JUL	7	11	23	19	12	-6	-11	8
23 JUL	-4	3	-1	-2	4	3	3	1
30 JUL	1	-4	-5	-5	-11	6	6	-2
6 AUG	23	6	7	2	1	17	29	12
13 AUG	22	12	-2	1	4	12	16	9
20 AUG	20	-13	-29	3	-11	-24	-1	-8
27 AUG	0	3	-18	-16	0	2	-2	-4
3 SEP	21	16	3	3	-1	7	43	13
10 SEP	8	12	94	45	32	33	5	33
17 SEP	-113	-92	-176	-102	-73	-10	-4	-82
24 SEP	-5	6	18	-19	-20	5	28	2
1 OCT	-93	5	4	-77	8	9	-26	-24
8 OCT	-21	6	23	-0	-6	-11	30	3
15 OCT	57	10	27	34	-1	-18	-23	12
22 OCT	-24	-100	-83	-6	14	-5	-40	-35
29 OCT	-43	-12	-12	-54	-99	-60	-28	-44
5 NOV	-9	-21	-152	-176	-11	-7	-23	-57
12 NOV	-56	-32	-29	-7	-67	-5	-58	-36
19 NOV	-79	-31	-23	-1	7	-452	-34	-87
26 NOV	-11	-143	53	-4	-93	-113	-42	-50
3 DEC	-7	-10	-5	-5	-10	4	40	1
10 DEC	-8	-0	-24	11	-334	-752	-324	-205
17 DEC	-80	-144	-66	-22	-58	-256	-297	-132
24 DEC	-414	-135	-19	-29	-59	-19	-89	-109
31 DEC	-270	-264	-32	-10	-39	-33	-24	-96

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 60N, 149W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-33	-16	-19	-32	-89	-253	-256	-100
14 JAN	-236	-213	-217	-333	-166	-87	-37	-184
21 JAN	-175	-126	-33	-81	-114	-183	-69	-111
28 JAN	88	-67	-250	-147	-23	16	-29	-59
4 FEB	-16	-64	-31	-63	-30	-38	-100	-49
11 FEB	-185	-200	-197	-94	-43	-42	-38	-117
18 FEB	-50	-113	41	6	-16	-51	-81	-38
25 FEB	-81	-52	-35	-29	-21	-3	-10	-33
4 MAR	1	-1	-75	-13	29	4	42	-2
11 MAR	26	18	-35	-15	-6	-36	-58	-15
18 MAR	-91	-12	-13	-43	-80	3	7	-33
25 MAR	13	5	-42	-4	8	-1	1	-3
1 APR	-62	-43	-28	4	11	-53	-3	-25
8 APR	12	7	10	26	5	-43	-4	2
15 APR	-12	2	4	7	1	-69	-40	-15
22 APR	-5	2	0	-16	-3	6	-1	-2
29 APR	-44	-30	11	-1	-8	-62	-1	-19
6 MAY	-19	-65	-10	-3	-18	-64	-27	-29
13 MAY	-36	-37	-2	-18	-11	1	38	-9
20 MAY	-6	4	-1	-7	6	9	-44	-6
27 MAY	-5	-14	-4	9	8	21	52	10
3 JUN	1	1	-5	-0	5	4	3	1
10 JUN	-0	-8	-7	4	1	6	4	-0
17 JUN	4	12	14	9	-3	-3	-8	4
24 JUN	3	16	9	9	15	23	7	12
1 JUL	2	2	3	3	9	8	7	5
8 JUL	12	12	5	5	-14	12	10	6
15 JUL	1	6	10	9	13	11	24	10
22 JUL	10	3	7	48	13	-36	0	6
29 JUL	10	13	13	2	-6	10	9	7
5 AUG	59	23	14	12	5	7	10	19
12 AUG	12	-20	-16	-5	-2	4	14	-2
19 AUG	15	44	33	2	8	40	33	25
26 AUG	3	7	10	7	4	-57	-14	-6
2 SEP	-3	-25	-20	-5	-3	-51	-15	-18
9 SEP	2	5	18	22	10	3	-19	6
16 SEP	-17	1	-3	-8	-4	-2	-4	-5
23 SEP	-0	-0	-21	-1	-3	-9	2	-5
30 SEP	56	49	0	-5	17	1	0	17
7 OCT	-5	6	1	4	-13	-29	-17	-7
14 OCT	-91	-224	-19	13	-49	-83	-159	-87
21 OCT	-84	-20	-30	-25	-104	-51	-13	-47
28 OCT	-62	-79	-22	-36	-36	-23	-15	-39
4 NOV	-18	-21	-29	-19	-98	-26	27	-26
11 NOV	-116	-104	-128	-90	-16	-16	1	-67
18 NOV	-49	-118	-19	-39	-47	4	-13	-40
25 NOV	-12	-197	-429	-304	-222	-174	-128	-209
2 DEC	-148	-58	-147	-97	-55	-40	-181	-103
9 DEC	-45	-49	-223	-153	-108	-67	-66	-102
16 DEC	-12	-108	-120	-4	9	-17	-180	-62
23 DEC	-120	-14	-10	-55	-252	-23	7	-67



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

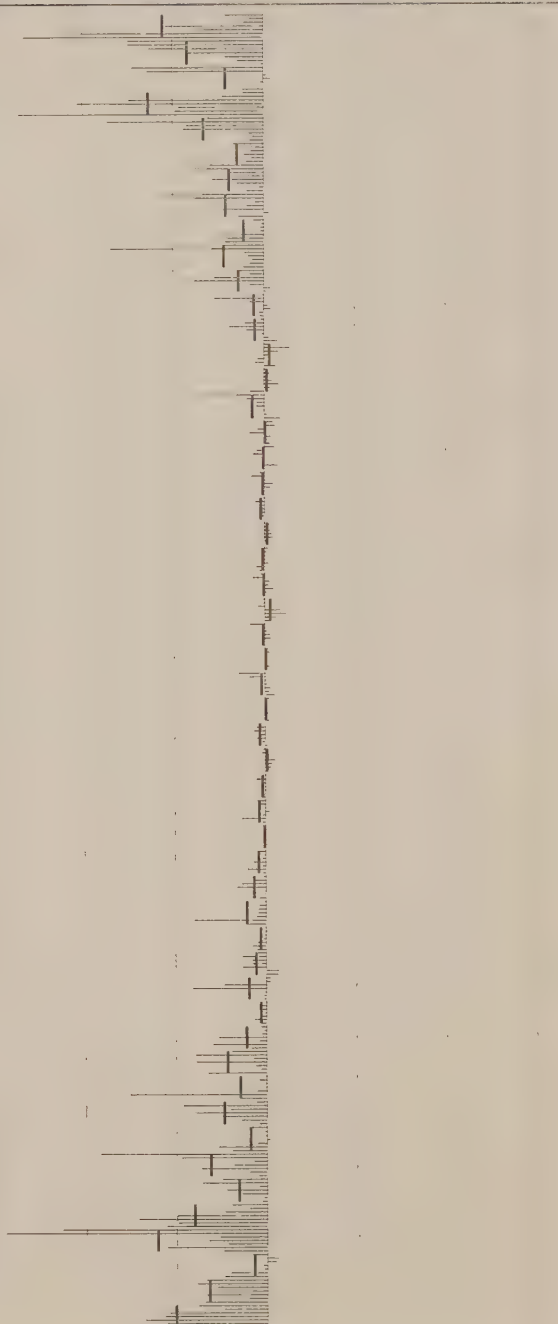
DURING 1967 AT 60N, 146W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	-97	-38	-56	-41	-44	-103	11	-44
8 JAN	-18	-276	-174	-50	-37	-95	-291	-134
15 JAN	-59	-58	-268	-344	-95	-271	-198	-185
22 JAN	-153	-106	-52	-102	-124	-198	-398	-162
29 JAN	-396	-192	-256	-97	-47	-189	-50	-175
5 FEB	-33	-18	-95	31	-74	-79	-146	-59
12 FEB	-45	-11	-72	-97	-190	-42	4	-65
19 FEB	-0	-19	-105	-23	-30	-113	-116	-58
26 FEB	-309	-49	-4	5	7	35	113	-29
5 MAR	46	-59	44	2	-52	-56	-24	-14
12 MAR	-36	-60	-91	-130	-138	-116	-29	-86
19 MAR	-126	-128	-27	-115	-145	-78	-20	-91
26 MAR	-127	-21	7	-2	28	28	43	-6
2 APR	37	18	15	94	56	4	-8	31
9 APR	6	38	-3	-38	-12	7	-17	-3
16 APR	-7	6	-5	11	10	-8	-2	1
23 APR	-4	-18	-6	14	28	-5	-14	-1
30 APR	-9	-6	7	20	4	22	-9	4
7 MAY	-18	-6	-13	-6	-35	-15	5	-13
14 MAY	5	3	-4	-0	8	-2	-46	-5
21 MAY	15	22	21	7	-6	-26	-17	2
28 MAY	4	15	28	-16	48	23	10	16
4 JUN	31	55	40	7	4	1	-9	18
11 JUN	11	2	-1	11	17	5	-1	6
18 JUN	2	11	28	30	8	11	14	15
25 JUN	6	9	5	50	71	19	-8	22
2 JUL	5	22	2	12	-0	20	10	10
9 JUL	-1	-11	-19	-2	3	19	5	-1
16 JUL	31	3	10	39	50	10	17	23
23 JUL	-0	16	8	16	-7	-1	16	7
30 JUL	22	31	27	-10	1	5	-7	10
6 AUG	-2	-19	-3	9	20	32	148	27
13 AUG	91	46	35	26	10	-10	-17	26
20 AUG	4	-4	0	1	-18	-13	9	-3
27 AUG	-3	-62	-47	-16	-17	4	-8	-21
3 SEP	-22	-29	-13	-94	-29	1	2	-26
10 SEP	-1	-81	-182	-29	-58	-17	-71	-63
17 SEP	-50	28	-3	-6	-11	-164	-53	-37
24 SEP	2	-162	-37	12	-48	-22	-18	-39
1 OCT	-38	-99	-39	-169	-96	-27	-14	-69
8 OCT	-162	-100	-34	-3	-1	-9	-47	-51
15 OCT	16	-1	-11	-2	-54	1	-6	-8
22 OCT	6	-3	-5	-132	-97	-1	11	-32
29 OCT	-107	-6	-0	-57	-0	8	-0	-23
5 NOV	-9	-17	-71	-93	-59	-43	-0	-42
12 NOV	65	-11	-5	62	49	-18	25	24
19 NOV	29	-2	74	81	20	-58	-149	-1
26 NOV	-145	-65	-84	-52	-29	-189	-64	-90
3 DEC	-117	-120	-28	-299	-56	-19	-69	-101
10 DEC	1	-13	-190	-71	-71	64	1	-40
17 DEC	-20	-23	-27	-65	-220	-481	-302	-163
24 DEC	-234	-268	-57	-3	5	30	2	-75
31 DEC	2	-20	6	9	10	-57	-99	-21

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 60N, 146W

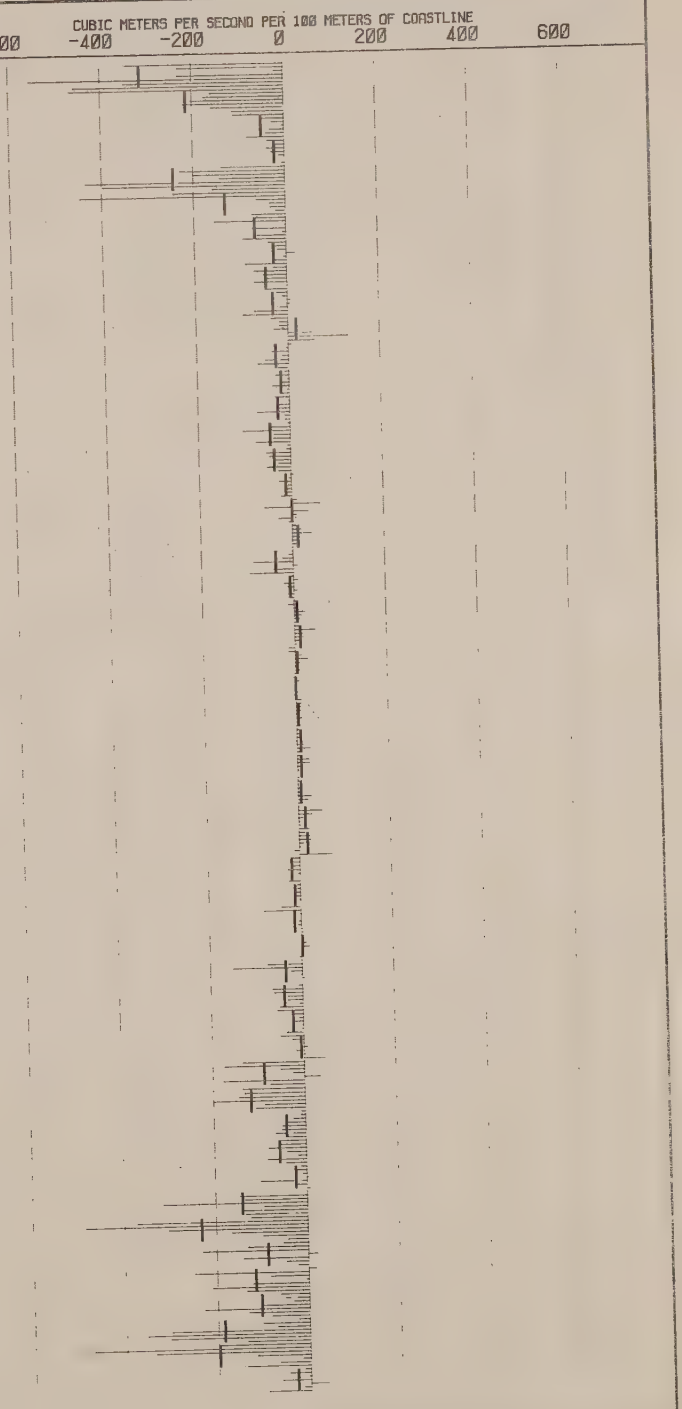
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-84	-53	-65	-215	-152	-438	-528	-219
14 JAN	-298	-299	-252	-163	-85	-60	-5	-166
21 JAN	-290	-257	5	19	-6	-1	-47	-82
28 JAN	-45	-91	-295	-410	-186	-194	-541	-252
4 FEB	-121	-344	-170	-175	-31	-39	-31	-130
11 FEB	-66	-49	-29	-42	-26	-40	-140	-56
18 FEB	-150	-76	-69	-113	-58	-8	-36	-73
25 FEB	-223	-161	-18	-36	-88	11	-53	-81
3 MAR	-21	-3	-6	-5	-88	-82	-87	-42
10 MAR	-87	-338	-41	-33	-24	-31	-44	-86
17 MAR	-59	-29	-108	-173	-30	14	5	-54
24 MAR	-1	-108	-30	9	14	-10	-8	-19
31 MAR	-6	-42	-76	-37	-4	10	31	-18
7 APR	15	57	33	9	-15	-20	24	15
14 APR	5	10	3	19	34	12	-31	8
21 APR	-141	-37	-17	-16	1	6	36	-24
28 APR	17	24	-13	-32	14	6	12	4
5 MAY	23	-17	-23	-6	-3	29	-3	-0
12 MAY	-10	-29	-1	18	12	-2	-4	-2
19 MAY	-2	-20	-4	-4	-5	-4	0	-6
26 MAY	1	3	13	17	21	3	-1	8
2 JUN	7	4	-0	-0	8	-18	-11	-1
9 JUN	-8	-26	11	8	18	3	1	1
16 JUN	-2	-2	-16	35	49	25	13	14
23 JUN	-33	-5	5	10	12	1	-0	-1
30 JUN	5	10	2	1	-1	10	4	5
7 JUL	-59	-35	2	3	12	8	19	-7
14 JUL	7	2	1	-0	5	5	9	4
21 JUL	1	-18	-25	-10	-22	-6	4	-11
28 JUL	-5	-7	7	21	16	13	5	7
4 AUG	1	-21	-7	2	1	3	-6	-4
11 AUG	-18	-12	-1	9	-6	-52	-7	-12
18 AUG	-6	2	-1	1	2	1	-4	-1
25 AUG	-14	-3	-6	-26	-5	-40	-7	-14
1 SEP	-4	-27	-53	-61	-0	-4	-14	-23
8 SEP	-2	-13	-15	-16	-21	-172	-42	-40
15 SEP	1	2	-2	-6	-18	-31	-19	-10
22 SEP	-23	-53	-30	-30	-52	28	26	-19
29 SEP	8	9	-92	-162	-1	-5	-5	-35
6 OCT	3	-8	-14	-2	-15	-26	-12	-11
13 OCT	-12	-3	-11	-106	-17	-117	-33	-43
20 OCT	-77	-156	-27	-153	-24	-11	-134	-83
27 OCT	-1	-16	-3	-2	-20	-302	-55	-57
3 NOV	-22	-184	-81	-184	-97	-56	-15	-91
10 NOV	-38	-5	-3	6	-21	-106	-77	-35
17 NOV	-367	-188	-28	-73	-145	-38	-18	-122
24 NOV	-98	-142	-15	-88	-54	-5	-11	-59
1 DEC	-79	-37	-92	-199	-284	-196	-223	-158
8 DEC	-465	-577	-104	-131	-86	-220	-96	-240
15 DEC	-32	26	19	-9	-5	-80	-95	-25
22 DEC	-134	-156	-119	-106	-137	-96	-138	-127
29 DEC	-151	-96	-227	-229	-279	-222	-197	-200



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 60N, 146W

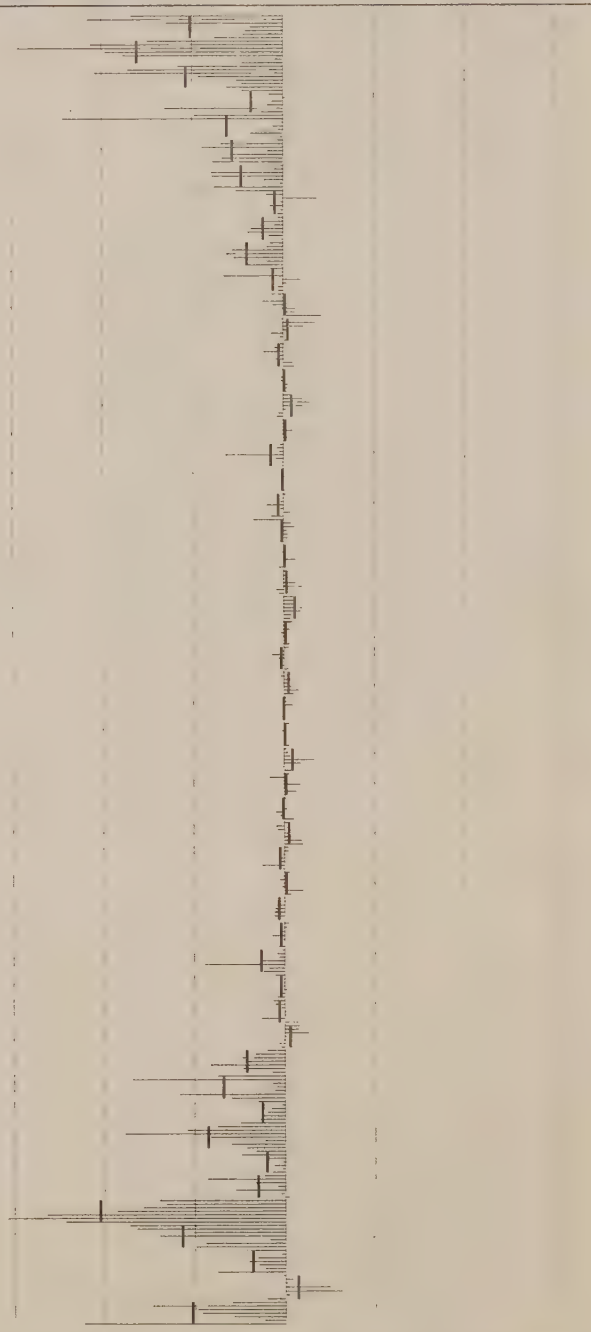
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-348	-230	-20	-229	-553	-348	-458	-312
12 JAN	-467	-159	-174	-201	-217	-158	-112	-213
19 JAN	-111	-51	-27	-3	-29	-38	-79	-48
26 JAN	-35	-23	-38	-27	-13	1	-10	-21
2 FEB	-139	-227	-200	-141	-434	-398	-157	-242
9 FEB	-244	-447	-62	-34	-32	-20	-72	-130
16 FEB	-70	-154	-1	-72	-6	-62	-94	-66
23 FEB	-39	-22	-18	18	-5	-28	-90	-26
2 MAR	-28	-72	-49	-41	-70	2	-48	-44
9 MAR	-21	-11	5	4	-25	-72	-95	-31
16 MAR	-36	-17	-19	-30	49	131	57	19
23 MAR	7	-4	-35	-12	-51	-66	-23	-26
30 MAR	-8	-27	-1	-15	-37	-3	-15	-15
6 APR	-31	-2	-25	-26	-70	-11	-9	-25
13 APR	-4	-40	-102	-36	-36	-74	-6	-43
20 APR	-9	-52	-46	-36	-26	-52	-25	-35
27 APR	5	-3	-27	-6	-9	-9	-23	-10
4 MAY	9	60	-58	33	8	-29	-7	2
11 MAY	9	18	40	12	13	10	-1	15
18 MAY	-1	-9	-22	-86	8	-42	-93	-35
25 MAY	-5	8	-21	-13	5	-13	-3	-6
1 JUN	8	-11	7	24	14	10	8	9
8 JUN	9	45	21	20	14	2	-15	14
15 JUN	-14	15	26	7	7	9	-9	6
22 JUN	-5	6	3	1	1	2	10	3
29 JUN	10	8	11	5	10	5	-3	7
6 JUL	9	7	9	-2	12	30	9	11
13 JUL	7	25	27	6	2	-0	3	10
20 JUL	3	-0	3	2	28	19	6	9
27 JUL	1	50	28	7	2	2	24	16
3 AUG	12	23	25	11	3	-10	72	19
10 AUG	-16	-15	-18	-38	-6	4	-29	-17
17 AUG	-5	-6	-12	-9	-2	3	-42	-10
24 AUG	-80	1	-0	-4	-6	3	4	-12
31 AUG	3	2	11	16	5	-3	-5	4
7 SEP	0	-73	-150	-23	-2	5	0	-35
14 SEP	-12	-66	-62	-32	-33	-7	-50	-37
21 SEP	-55	-21	-9	-21	-2	-2	-36	-21
28 SEP	-50	-24	-0	8	-16	2	47	-5
5 OCT	-133	-174	-53	-23	33	-177	-81	-87
12 OCT	-138	-131	-143	-200	-87	-110	-7	-117
19 OCT	-10	-27	-41	-49	-52	-65	-42	-41
26 OCT	-58	-59	-82	-47	-19	-85	-43	-56
2 NOV	-13	-22	-8	2	-99	-21	5	-22
9 NOV	-1	-149	-196	-315	-93	-145	-137	-139
16 NOV	-137	-373	-484	-303	-166	-99	-44	-229
23 NOV	-53	-132	-231	21	-142	-49	-22	-87
30 NOV	15	-251	-84	-5	-123	-211	-135	-113
7 DEC	-77	-52	-35	-106	-229	-133	-83	-102
14 DEC	-25	-102	-69	-301	-353	-303	-136	-184
21 DEC	-194	-494	-396	-116	-16	-66	-147	-196
28 DEC	-12	-46	-4	-62	41	-14	-91	-27



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 60N, 146W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	-334	-431	-257	-73	-83	-88	-150	-202
11 JAN	-297	-424	-588	-391	-351	-106	-90	-321
18 JAN	-230	-341	-414	-185	-101	-81	-124	-212
25 JAN	-91	-30	3	-23	-93	-261	-48	-69
1 FEB	-194	-486	-3	-22	-50	-69	-25	-121
8 FEB	-9	-135	-182	-38	-116	-133	-153	-110
15 FEB	-52	-40	-158	-156	-99	-5	-104	-91
22 FEB	-103	-35	74	-4	-27	-4	-12	-16
1 MAR	-10	-39	-57	-70	-85	-31	-3	-42
8 MAR	-27	-36	-112	-124	-109	-62	-79	-78
15 MAR	-27	-1	-131	39	7	-12	-10	-19
22 MAR	-24	4	-50	-23	27	28	84	7
29 MAR	-13	72	43	10	-25	-6	7	13
5 APR	-11	-18	-42	-5	-23	20	24	-8
12 APR	-2	3	-3	-3	10	9	8	3
19 APR	14	43	60	41	7	-10	-13	20
26 APR	2	5	2	20	2	8	6	6
3 MAY	-6	-15	-9	-129	-17	-2	-2	-26
10 MAY	-0	1	1	-3	-3	0	2	-0
17 MAY	4	-1	-6	-47	-6	15	-27	-10
24 MAY	-66	16	24	6	9	8	-8	-1
31 MAY	3	3	-2	4	26	2	-10	4
7 JUN	9	4	0	26	40	-16	-11	7
14 JUN	26	22	23	41	37	17	14	26
21 JUN	19	4	11	-5	0	3	12	6
28 JUN	10	-4	-25	-10	0	-4	9	-3
5 JUL	-0	-6	13	12	16	32	20	12
12 JUL	5	4	17	1	0	-12	-2	2
19 JUL	10	5	-4	-0	3	1	10	3
26 JUL	4	8	12	68	37	-3	13	20
2 AUG	9	-32	-1	34	7	26	3	7
9 AUG	2	-3	-3	6	-18	-7	20	-1
16 AUG	11	-18	-14	15	14	37	41	12
23 AUG	9	8	-2	-5	-13	-49	-1	-8
30 AUG	10	-2	-9	-3	-4	40	13	6
6 SEP	1	1	-16	-20	-21	-22	3	-11
13 SEP	10	4	-8	-29	-2	-1	-12	-5
20 SEP	-3	-15	-12	-50	-176	-45	-46	-49
27 SEP	-21	0	-3	-3	4	-9	-15	-7
4 OCT	-24	-20	-8	2	1	-50	27	-10
11 OCT	33	31	51	2	-1	-12	-8	13
18 OCT	-38	-64	-95	-86	-164	-92	-29	-81
25 OCT	-149	-336	-49	-29	-23	-232	-117	-134
1 NOV	-58	-6	-30	-37	-49	-54	-98	-47
8 NOV	-151	-215	-353	-164	-86	-118	-83	-167
15 NOV	-64	-97	-36	-3	-24	-6	-34	-38
22 NOV	-45	-171	-64	-17	-110	-10	7	-58
29 NOV	-279	-264	-315	-372	-529	-613	-486	-408
6 DEC	-344	-340	-215	-278	-34	-176	-198	-226
13 DEC	-87	-7	-61	-79	-59	-45	-150	-70
20 DEC	-3	15	4	98	124	8	-39	30
27 DEC	-117	-335	-195	-184	-113	-45	-446	-205



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 60N, 146W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	-162	-41	28	-56	-170	-311	-423	-162
10 JAN	-163	-149	-237	-355	-497	-587	-334	-332
17 JAN	-539	-235	-91	-86	-125	-146	-169	-199
24 JAN	-283	-801	-595	-495	-300	-305	-165	-421
31 JAN	-413	-72	-34	-39	-112	-128	-30	-118
7 FEB	-27	-64	10	-18	-189	-25	-143	-65
14 FEB	-189	-30	-23	-193	4	-101	-77	-87
21 FEB	-20	17	3	-60	-65	-80	-18	-32
28 FEB	-63	-114	-218	-211	-145	-258	-182	-170
7 MAR	-64	-77	-39	-131	-53	-12	-1	-54
14 MAR	-21	-19	-188	-7	-11	-49	-63	-51
21 MAR	-69	-99	-99	-14	-20	-63	-183	-78
28 MAR	-70	-34	-11	-26	-32	-99	-89	-52
4 APR	0	-9	4	-28	-234	-109	-1	-54
11 APR	-20	-15	-184	85	-19	-9	-5	-24
18 APR	16	11	-56	-148	-28	2	-43	-35
25 APR	-1	34	5	3	-2	-1	-18	3
2 MAY	-30	79	-11	-30	4	89	6	15
9 MAY	-44	-74	-3	-76	3	11	7	-25
16 MAY	-10	-70	0	9	-42	24	4	-12
23 MAY	7	13	-1	15	-79	-4	13	-5
30 MAY	23	-79	43	23	1	-3	-5	0
6 JUN	-1	-11	-76	-31	2	19	25	-11
13 JUN	22	31	31	11	5	6	2	15
20 JUN	1	-3	-6	3	10	1	16	3
27 JUN	20	14	31	7	-1	-1	4	11
4 JUL	16	12	14	14	5	6	6	10
11 JUL	9	30	47	17	1	14	2	17
18 JUL	-2	-10	50	23	10	9	-18	9
25 JUL	-1	28	15	9	-0	7	15	10
1 AUG	12	5	-8	0	7	16	41	11
8 AUG	64	51	25	2	4	0	-4	20
15 AUG	-8	-15	-21	-23	-9	-21	-7	-15
22 AUG	-26	-7	-1	2	5	-10	-98	-19
29 AUG	-24	-3	4	9	-14	-12	-2	-7
5 SEP	15	-121	-58	4	-22	-41	-34	-37
12 SEP	0	18	2	-226	40	18	-8	-22
19 SEP	-3	4	-2	-5	5	10	-4	1
26 SEP	2	-12	-18	10	12	13	-2	1
3 OCT	-13	-12	-5	-74	-182	63	-110	-48
10 OCT	5	2	14	16	-4	-38	91	12
17 OCT	23	-4	-6	-158	-155	-1	19	-40
24 OCT	17	1	0	-77	17	7	-10	-6
31 OCT	-20	-6	-158	-118	-15	-163	-190	-96
7 NOV	-129	-141	-101	-20	6	-0	-43	-61
14 NOV	-11	-198	-33	-49	56	24	-67	-40
21 NOV	-11	-100	-254	-105	-172	-144	-117	-129
28 NOV	-22	-38	-144	-216	-48	-19	-26	-73
5 DEC	-19	-48	-62	-10	-88	-129	-120	-68
12 DEC	-156	-32	-13	-95	-26	13	55	-36
19 DEC	-39	-415	-282	-203	-16	-30	-23	-144
26 DEC	-20	2	23	-56	13	24	4	-1

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

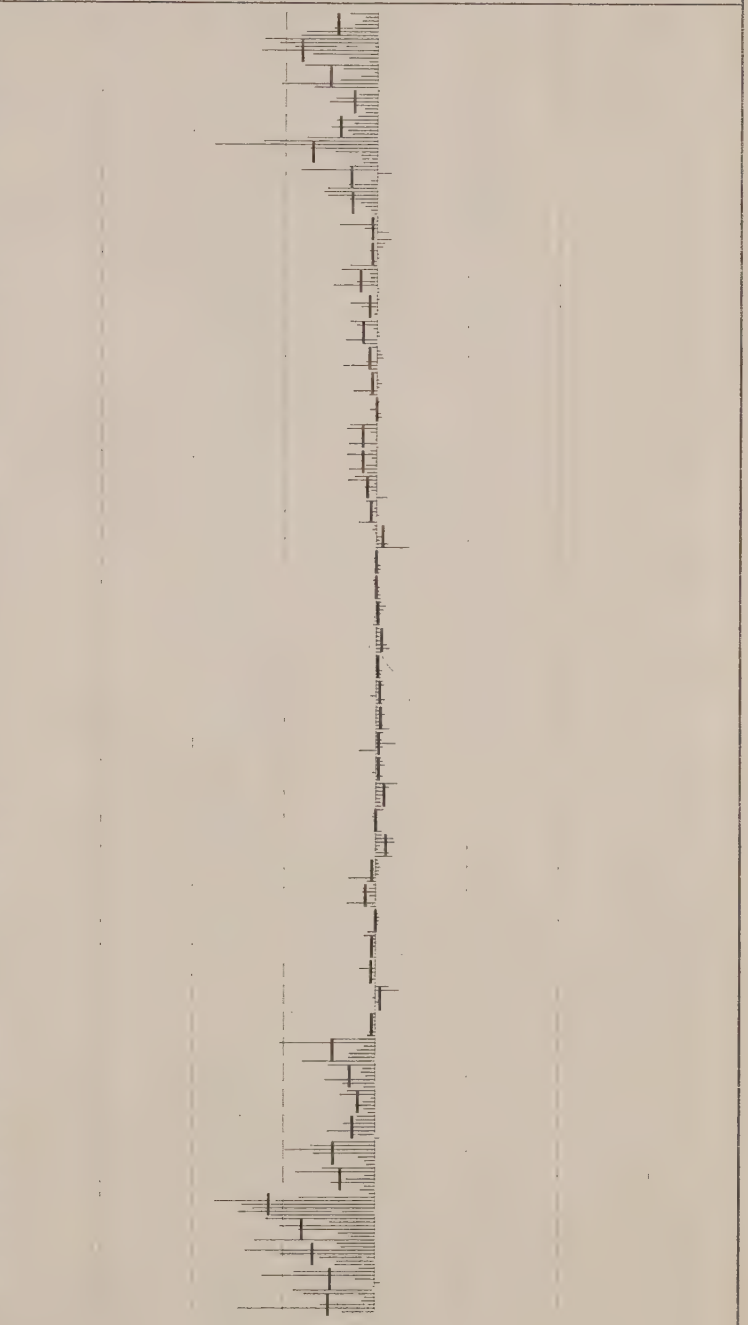
DURING 1972 AT 60N, 146W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	-123	-25	-38	-1	-40	-49	-93	-53
9 JAN	-78	-114	-94	-133	-268	-346	-198	-176
16 JAN	-515	-309	-319	-290	-300	-158	-250	-305
23 JAN	-216	-94	-63	-23	9	71	44	-39
30 JAN	4	-13	-50	-73	-262	-335	-368	-157
6 FEB	-348	-144	-297	-9	-143	-85	-50	-154
13 FEB	-72	-239	-50	-138	-314	-459	-345	-230
20 FEB	-306	-420	-155	-45	-248	-226	-70	-210
27 FEB	-155	-219	-167	-362	-175	-174	-98	-193
5 MAR	-118	-102	-197	-310	-261	-99	-143	-176
12 MAR	-205	-16	-1	-113	44	-142	-181	-88
19 MAR	-23	-8	-5	-23	-18	15	31	-4
26 MAR	22	39	43	-10	-82	-101	-25	-17
2 APR	-39	-1	-31	-159	-180	-92	-39	-77
9 APR	-7	-20	-8	18	47	7	-31	1
16 APR	-8	11	76	2	-28	-10	-42	-0
23 APR	-66	-1	3	-5	-11	0	-1	-11
30 APR	-1	1	-27	-43	-25	-37	9	-18
7 MAY	-1	-2	-3	-2	-7	-1	26	1
14 MAY	16	-1	6	19	7	43	34	18
21 MAY	44	15	9	-33	-12	-26	7	1
28 MAY	30	-0	-3	1	22	25	-6	10
4 JUN	-8	-1	3	-0	8	9	-6	1
11 JUN	-8	7	4	38	40	6	13	14
18 JUN	25	20	15	16	24	46	18	24
25 JUN	17	12	13	12	23	15	4	14
2 JUL	1	-1	3	0	-0	6	10	3
9 JUL	11	3	0	-1	14	18	14	8
16 JUL	11	11	23	24	17	-2	-6	11
23 JUL	-3	1	-2	-2	4	3	3	1
30 JUL	2	-1	-7	-9	-21	1	7	-4
6 AUG	24	7	9	1	-0	13	28	11
13 AUG	13	10	-7	-1	4	13	21	7
20 AUG	8	-14	-36	3	-11	-30	1	-11
27 AUG	0	3	-11	-20	1	3	-12	-5
3 SEP	12	13	-0	3	-0	5	32	9
10 SEP	15	10	74	49	31	31	19	33
17 SEP	-84	-69	-170	-119	-91	-21	-3	-80
24 SEP	-5	-2	19	-17	-25	9	34	2
1 OCT	-101	46	6	-94	16	21	-21	-18
8 OCT	-31	-3	-1	-9	-13	-14	9	-9
15 OCT	15	-22	23	27	0	-14	-32	-0
22 OCT	-25	-83	-51	-12	13	-14	-65	-34
29 OCT	-57	-17	-17	-53	-113	-109	-75	-63
5 NOV	-20	-15	-126	-188	-16	-7	-14	-55
12 NOV	-54	-29	-30	-2	-79	-11	-60	-38
19 NOV	-103	-36	-93	-6	13	-459	-32	-94
26 NOV	3	-178	16	-9	-75	-116	-66	-61
3 DEC	-11	-31	-16	-7	-9	-5	17	-9
10 DEC	-11	-2	-17	6	-299	-841	-383	-221
17 DEC	-85	-136	-67	-27	-61	-289	-351	-145
24 DEC	-487	-139	-9	-22	-93	-18	-29	-114
31 DEC	-145	-208	-61	-13	-48	-69	-33	-82

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 60N, 146W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-60	-28	-34	-50	-94	-154	-166	-84
14 JAN	-247	-215	-180	-274	-143	-63	-19	-163
21 JAN	-159	-74	-6	-36	-80	-208	-138	-100
28 JAN	4	-39	-91	-103	-50	-27	-27	-48
4 FEB	-42	-88	-51	-99	-63	-53	-154	-79
11 FEB	-251	-369	-146	-92	-36	-34	-31	-137
18 FEB	-61	-166	31	1	-15	-61	-108	-54
25 FEB	-116	-107	-60	-36	-25	-14	-5	-52
4 MAR	2	-2	-81	-29	26	1	31	-7
11 MAR	16	13	-16	1	3	-13	-58	-8
18 MAR	-78	-17	-14	-44	-95	3	5	-34
25 MAR	1	3	-58	-33	1	-7	-1	-13
1 APR	-58	-45	-8	4	5	-68	-30	-28
8 APR	-10	5	9	15	-21	-75	-17	-13
15 APR	-7	1	5	9	4	-50	-15	-8
22 APR	-1	5	2	-15	9	10	-2	1
29 APR	-58	-64	-13	-1	-3	-61	1	-28
6 MAY	-11	-64	-11	-2	-21	-61	-21	-27
13 MAY	-46	-62	-4	-27	-9	1	22	-18
20 MAY	-22	-1	-4	-9	3	1	-38	-10
27 MAY	-3	-9	-1	14	7	27	71	15
3 JUN	-1	-2	-4	2	9	8	5	2
10 JUN	1	-6	-4	6	5	7	8	2
17 JUN	9	19	14	7	-3	-1	-6	6
24 JUN	5	13	6	13	21	28	8	14
1 JUL	3	2	4	4	12	10	8	6
8 JUL	15	16	11	7	-11	17	12	9
15 JUL	3	9	18	4	13	13	29	13
22 JUL	15	7	12	43	15	-35	-1	8
29 JUL	10	14	18	4	-6	13	8	9
5 AUG	45	28	17	20	9	10	12	20
12 AUG	16	-4	-5	-3	-2	1	12	2
19 AUG	11	39	40	9	4	28	35	24
26 AUG	5	6	9	6	5	-58	-17	-6
2 SEP	-4	-26	-28	-12	-1	-63	-11	-21
9 SEP	2	3	9	7	5	1	-16	2
16 SEP	-24	-4	-3	-3	-1	-0	-2	-5
23 SEP	-1	-1	-34	-5	-1	-9	-1	-7
30 SEP	27	51	-1	-3	11	1	1	12
7 OCT	-3	-10	-2	-3	0	-11	-16	-6
14 OCT	-95	-207	-24	-41	-56	-58	-158	-91
21 OCT	-102	-25	-31	-20	-110	-70	-23	-55
28 OCT	-60	-76	-8	-26	-42	-24	-14	-36
4 NOV	-97	-41	-68	-45	-105	-48	9	-48
11 NOV	-89	-140	-197	-135	-36	-22	-18	-91
18 NOV	-113	-171	-21	-63	-98	-21	-32	-74
25 NOV	-12	-165	-351	-290	-265	-299	-226	-230
2 DEC	-238	-97	-208	-166	-81	-58	-264	-159
9 DEC	-81	-74	-284	-212	-120	-84	-86	-134
16 DEC	-33	-176	-246	-41	11	-4	-178	-95
23 DEC	-155	-22	-28	-119	-302	-71	-3	-100



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

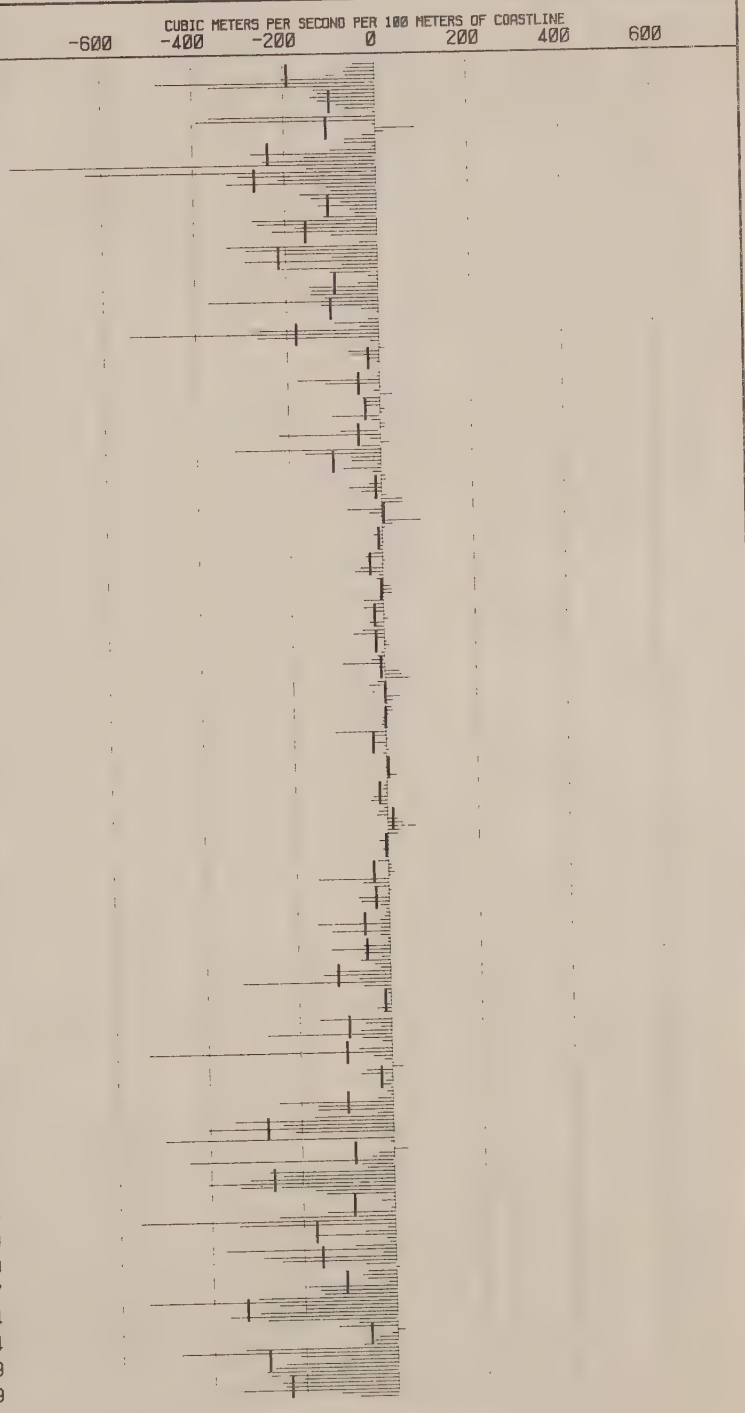
DURING 1967 AT 57N, 137W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	-63	-52	-15	-47	-245	-189	-5	-88
8 JAN	-78	-675	-313	-83	-17	-28	-391	-226
15 JAN	-65	-145	-258	-321	-131	-159	-189	-181
22 JAN	-324	-290	-202	-221	-159	-187	-260	-235
29 JAN	-418	-277	-472	-213	-64	-362	-66	-267
5 FEB	-63	-61	-206	39	-57	-68	-132	-78
12 FEB	-20	-11	-56	-9	-363	-122	-59	-91
19 FEB	-18	36	-253	-225	-48	-31	-164	-101
26 FEB	-489	-75	-30	7	10	33	78	-66
5 MAR	88	-96	18	56	-29	-55	-85	-15
12 MAR	-39	10	-131	-282	-256	-177	-55	-133
19 MAR	-82	-53	-20	0	-9	-17	-12	-27
26 MAR	-170	-61	3	7	29	11	49	-19
2 APR	21	38	27	57	67	-6	-18	26
9 APR	7	-8	-76	-3	-14	-12	36	-10
16 APR	31	6	6	2	6	3	3	8
23 APR	-0	-6	14	11	18	1	-6	4
30 APR	-4	-0	21	28	14	3	5	10
7 MAY	0	4	-3	-14	-20	-19	-3	-8
14 MAY	-1	1	9	-30	-7	-69	-139	-33
21 MAY	-11	1	25	8	-30	-117	-126	-36
28 MAY	-50	25	23	-23	11	63	52	14
4 JUN	46	84	102	54	14	3	-9	42
11 JUN	17	2	-12	-8	25	16	-10	4
18 JUN	-13	20	42	92	30	22	6	28
25 JUN	-1	2	-39	7	35	5	-3	1
2 JUL	7	29	-5	0	-49	-4	8	-2
9 JUL	-7	-40	-52	-21	-16	1	3	-19
16 JUL	-3	-2	2	21	10	-1	19	7
23 JUL	6	8	10	13	-12	-6	23	6
30 JUL	32	19	-11	1	5	15	7	10
6 AUG	-1	-84	-136	-71	-13	15	44	-35
13 AUG	57	28	31	23	9	-88	-166	-15
20 AUG	-28	-14	-26	-2	-84	-81	-24	-37
27 AUG	-21	-133	-79	-61	-58	-4	-23	-54
3 SEP	-18	-33	-34	-119	-155	-4	-19	-55
10 SEP	-33	-80	-523	-107	-243	-39	-119	-164
17 SEP	-142	-54	-10	4	31	-267	-54	-70
24 SEP	5	-247	-83	15	-75	-70	-23	-68
1 OCT	-35	-75	-15	-34	-102	-58	-32	-50
8 OCT	-286	-147	-32	1	-6	4	-117	-83
15 OCT	20	-9	-14	30	-185	-94	-2	-36
22 OCT	-0	-52	-37	-141	-391	-35	7	-92
29 OCT	-199	-49	19	-33	-23	-29	-19	-47
5 NOV	-36	-16	-15	-35	-46	10	-2	-20
12 NOV	-2	-104	-52	2	-2	-168	-11	-48
19 NOV	-18	-74	130	-8	62	19	-91	3
26 NOV	-291	-225	-63	-57	-27	-371	-89	-161
3 DEC	-78	-103	-71	-532	-114	-90	-47	-148
10 DEC	-35	8	-117	-319	-545	97	29	-126
17 DEC	32	-27	-95	-194	-422	-607	-477	-256
24 DEC	-530	-318	-201	0	3	-0	-7	-150
31 DEC	22	-51	-51	24	25	-49	-53	-19

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 57N, 137W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-46	-70	-66	-105	-205	-478	-363	-190
14 JAN	-133	-124	-140	-125	-85	-71	-5	-97
21 JAN	-362	-390	-6	87	10	-28	-67	-107
28 JAN	-68	-6	-90	-272	-156	-246	-798	-235
4 FEB	-150	-633	-301	-213	-326	-133	-98	-265
11 FEB	-165	-143	-79	-126	-57	-46	-116	-105
18 FEB	-279	-261	-180	-228	-99	4	-39	-155
25 FEB	-328	-285	-204	-98	-289	-87	-208	-214
3 MAR	-103	-21	-8	-42	-149	-145	-173	-91
10 MAR	-130	-394	-125	-36	-6	-2	-22	-102
17 MAR	-102	-40	-278	-542	-263	-17	2	-177
24 MAR	14	-86	-57	-19	-4	3	-3	-22
31 MAR	-3	-20	-178	-126	2	-13	25	-44
7 APR	-35	-29	-32	10	4	-105	-19	-29
14 APR	11	10	-87	-220	-22	20	-42	-47
21 APR	-317	-163	-64	-62	-7	-86	-18	-102
28 APR	7	9	-26	-71	-42	12	44	-10
5 MAY	48	-2	-81	-27	-2	83	22	6
12 MAY	5	-10	-18	-6	1	-7	-10	-6
19 MAY	-28	-37	5	-4	-49	-59	-7	-26
26 MAY	-13	1	18	18	18	-8	-43	-1
2 JUN	-22	-44	-19	3	9	-30	-20	-18
9 JUN	-46	-68	-16	4	11	2	-6	-17
16 JUN	-13	-27	-105	-11	30	35	56	-5
23 JUN	-16	-34	3	0	34	16	14	3
30 JUN	13	14	4	-6	-9	-7	-0	1
7 JUL	-117	-26	1	-30	-4	4	-7	-26
14 JUL	6	7	-1	-3	7	19	9	6
21 JUL	0	-5	-15	-3	-32	-35	-13	-15
28 JUL	-6	-17	-22	22	32	60	27	14
4 AUG	20	-3	-17	-5	-9	0	-5	-3
11 AUG	-25	6	6	17	3	-152	-59	-29
18 AUG	-32	5	-2	-69	-61	-17	-6	-26
25 AUG	-5	-10	-20	-155	-25	-126	-20	-52
1 SEP	-5	-12	-58	-128	-57	-19	-64	-49
8 SEP	-35	-34	-118	-147	-69	-322	-58	-112
15 SEP	-11	-6	3	0	-8	-37	-16	-11
22 SEP	-0	-156	-55	-21	-65	-270	-63	-90
29 SEP	-20	1	-72	-530	-39	-16	3	-96
6 OCT	25	-57	-69	-11	-14	-20	-5	-21
13 OCT	-12	-9	-37	-249	-165	-171	-34	-97
20 OCT	-172	-347	-240	-408	-223	-18	-499	-272
27 OCT	-6	-0	29	-32	-55	-446	-69	-83
3 NOV	-58	-286	-242	-314	-407	-336	-172	-259
10 NOV	-160	-2	-27	-1	-8	-147	-253	-85
17 NOV	-553	-341	-16	-67	-176	-19	-12	-169
24 NOV	-87	-379	-51	-290	-247	-65	7	-159
1 DEC	-63	-74	-64	-29	-193	-167	-158	-107
8 DEC	-301	-555	-272	-199	-298	-363	-282	-324
15 DEC	-84	-128	16	-12	-46	-50	-73	-54
22 DEC	-332	-473	-213	-125	-244	-267	-296	-279
29 DEC	-285	-225	-264	-246	-370	-132	-84	-229



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

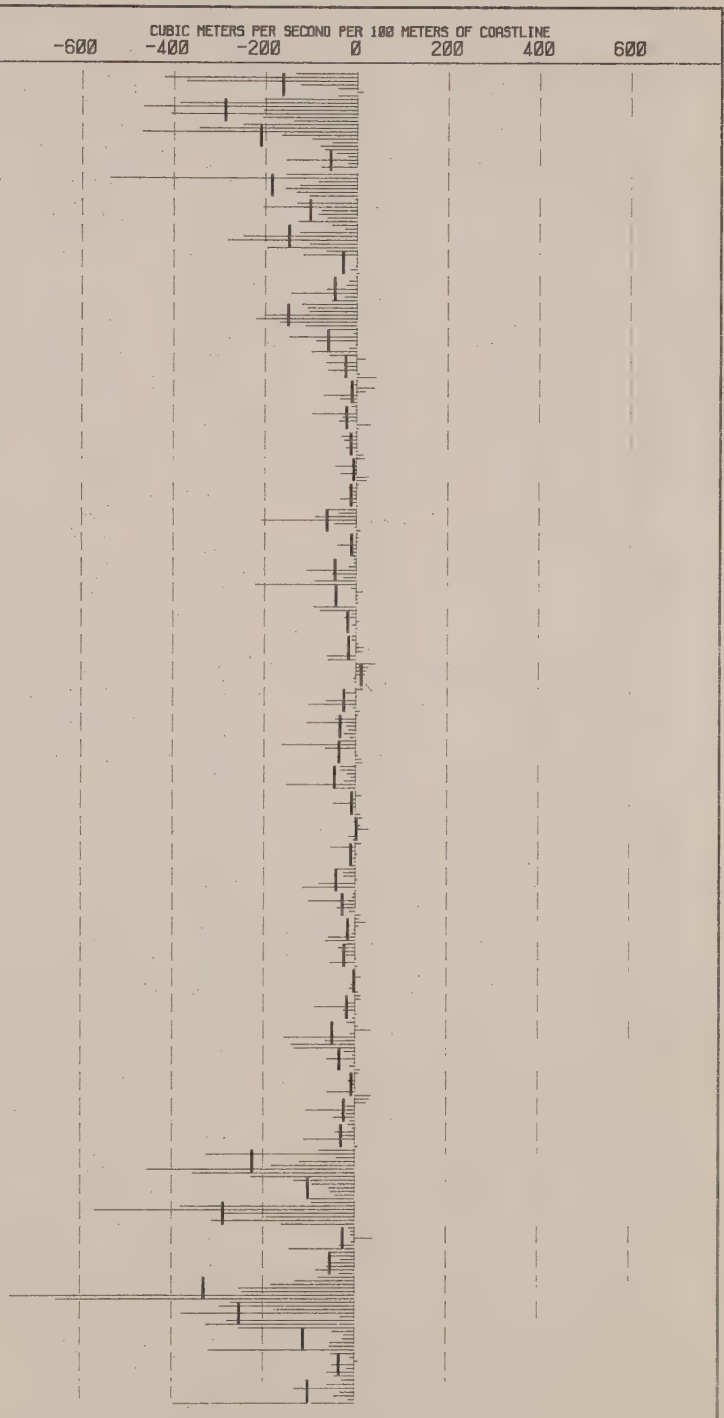
DURING 1969 AT 57N, 137W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-107	-106	-66	-175	-373	-262	-426	-216
12 JAN	-414	-147	-204	-166	-228	-194	-118	-210
19 JAN	-170	-81	-123	-42	-58	-99	-152	-104
26 JAN	-92	-41	-75	-54	-233	-4	-30	-76
2 FEB	-40	-189	-61	-147	-468	-334	-44	-183
9 FEB	-288	-718	-153	-19	-10	-24	-132	-192
16 FEB	-163	-285	-67	-81	-227	-135	-179	-162
23 FEB	-50	-23	-14	-16	-9	-38	-172	-46
2 MAR	-81	-98	-70	-12	-102	-46	-65	-68
9 MAR	-145	-75	-3	-4	-63	-37	-26	-50
16 MAR	-14	-16	1	-20	-80	29	67	-5
23 MAR	-66	-47	-27	7	-12	-71	-75	-42
30 MAR	-60	-20	-10	-92	-119	-11	-0	-45
6 APR	-48	-139	-95	-116	-255	-67	2	-103
13 APR	-13	-55	-242	-111	-59	-152	-11	-92
20 APR	-41	-41	-46	0	-42	-203	-95	-67
27 APR	-19	11	-5	-13	-60	-36	-141	-38
4 MAY	-59	-30	-140	-42	10	-61	-51	-53
11 MAY	-6	32	73	54	8	22	10	28
18 MAY	8	-3	-39	-82	-13	-50	-63	-35
25 MAY	1	3	-15	-9	6	-101	-82	-28
1 JUN	-8	-33	-31	-12	4	10	3	-10
8 JUN	14	77	94	89	32	3	-3	44
15 JUN	-10	-2	22	48	22	4	-4	11
22 JUN	-11	-3	4	7	1	6	6	1
29 JUN	7	7	13	20	6	0	-6	7
6 JUL	-1	-6	-58	-90	-20	-8	5	-25
13 JUL	10	16	10	8	-5	-17	-31	-1
20 JUL	-5	-37	-11	-9	9	-24	-4	-12
27 JUL	-6	1	-23	-13	-21	1	20	-6
3 AUG	5	11	26	0	-1	-8	12	6
10 AUG	-90	-5	-26	-25	-8	1	-101	-36
17 AUG	-20	-3	-3	-6	-1	-9	-13	-8
24 AUG	-20	-9	3	4	-19	-28	-17	-12
31 AUG	3	16	25	5	1	-11	-8	5
7 SEP	-19	-125	-280	-171	-29	8	4	-88
14 SEP	-29	-125	-122	-82	-23	-8	-54	-63
21 SEP	-104	-38	-6	-26	2	-2	-7	-26
28 SEP	-76	-87	-17	11	-22	-230	-68	-70
5 OCT	-255	-408	-210	-58	-18	-192	-297	-206
12 OCT	-262	-217	-210	-230	-77	-61	-52	-159
19 OCT	2	-44	-47	-25	-55	-157	-193	-74
26 OCT	-130	-51	-109	-98	-72	-295	-98	-122
2 NOV	-162	-107	-50	-18	-92	-53	-72	-79
9 NOV	11	-21	-68	-441	-174	-33	-11	-105
16 NOV	-8	-344	-437	-275	-90	-108	-148	-201
23 NOV	-53	-175	-268	-92	-249	-322	-257	-202
30 NOV	-25	-312	-273	-37	-125	-369	-318	-209
7 DEC	-199	-58	-116	-158	-315	-298	-177	-189
14 DEC	-19	-169	-202	-510	-563	-641	-163	-324
21 DEC	-191	-365	-327	-280	-66	-98	-199	-218
28 DEC	-47	-262	-96	-308	-16	9	-17	-105

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 57N, 137W

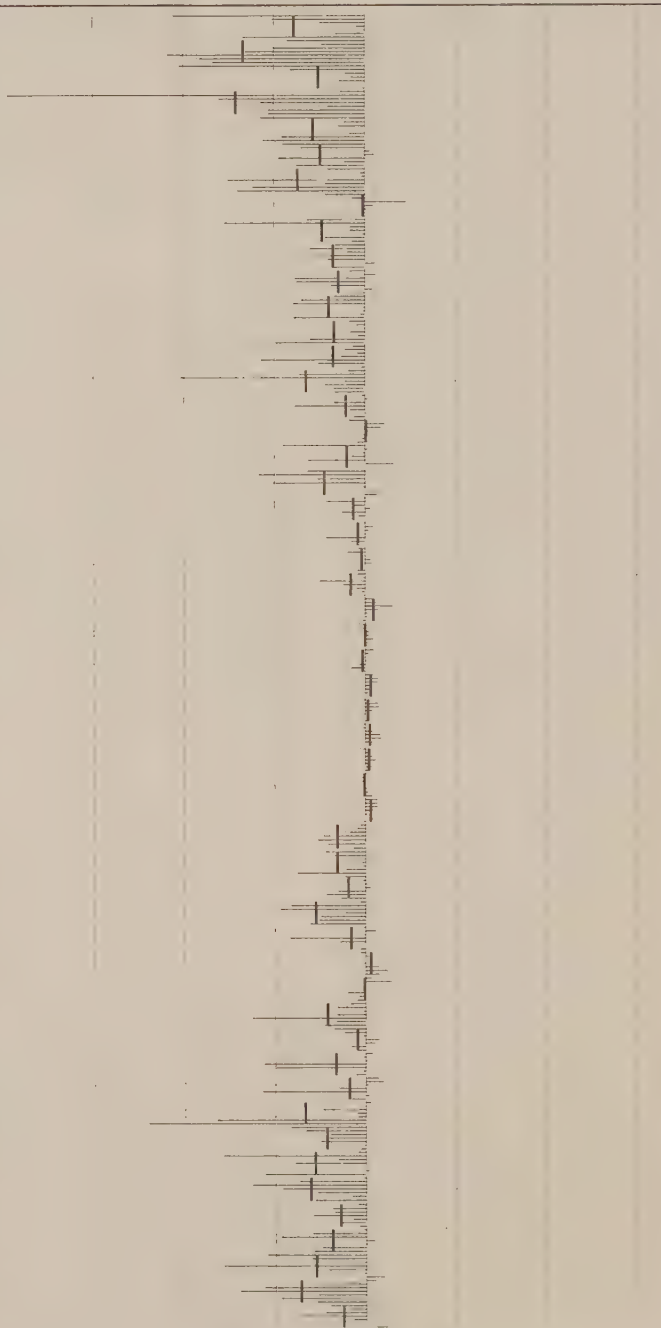
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	-133	-421	-372	-124	-41	11	-43	-160
11 JAN	-201	-386	-466	-204	-406	-206	-137	-287
18 JAN	-248	-344	-468	-164	-99	-54	-81	-208
25 JAN	-71	-44	-19	-154	-20	-79	-2	-55
1 FEB	-155	-538	-85	-124	-156	-132	-103	-185
8 FEB	-3	-131	-204	-78	-85	-65	-126	-99
15 FEB	-54	-26	-124	-245	-282	-101	-196	-147
22 FEB	-66	-116	0	2	-1	-13	4	-27
1 MAR	-2	-16	-22	-67	-142	-25	-54	-47
8 MAR	-121	-108	-103	-200	-221	-168	-113	-148
15 MAR	-63	-6	-146	-87	-1	-16	-98	-60
22 MAR	-60	17	-66	-26	-61	7	42	-21
29 MAR	2	-3	38	19	-71	-36	-9	-9
5 APR	-10	-2	-96	-29	-39	30	4	-20
12 APR	-3	-32	-25	-7	-22	2	13	-11
19 APR	18	-7	-45	-5	-33	26	22	-4
26 APR	3	-17	-13	-6	-33	-11	2	-11
3 MAY	-61	-38	-88	-206	-48	-1	8	-62
10 MAY	2	4	2	-40	-10	-5	-7	-8
17 MAY	-4	-4	-15	-109	-51	-27	-91	-43
24 MAY	-220	-10	13	4	3	3	-93	-43
31 MAY	-78	-8	-23	6	-9	3	-1	-16
7 JUN	-8	-8	4	15	15	-62	-60	-15
14 JUN	42	27	21	19	-4	-3	-0	15
21 JUN	14	-20	3	-64	-102	-5	8	-24
28 JUN	3	-45	-106	-20	-14	-25	-11	-31
5 JUL	-38	-159	-67	-2	4	12	13	-34
12 JUL	-32	-32	-18	-10	-25	-150	-44	-44
19 JUL	1	12	-10	-49	-4	1	10	-6
26 JUL	13	-1	9	29	1	-14	-4	5
2 AUG	12	-54	-7	5	-3	-2	-7	-8
9 AUG	-43	-27	-25	4	-77	-114	3	-40
16 AUG	-4	-7	-102	-30	-39	-12	11	-26
23 AUG	9	22	8	-2	-7	-58	-64	-13
30 AUG	-22	-36	-29	-19	2	-53	4	-22
6 SEP	0	1	12	-0	-7	-11	7	0
13 SEP	13	11	-20	-87	-24	3	-4	-15
20 SEP	-17	7	34	-10	-154	-64	-137	-49
27 SEP	-133	-22	-5	-61	-1	-9	11	-31
4 OCT	9	1	-15	-10	2	-61	35	-6
11 OCT	30	23	-24	-105	-29	-46	-10	-23
18 OCT	-15	-5	-42	-26	-110	0	6	-27
25 OCT	-78	-324	-41	-119	-182	-455	-354	-222
1 NOV	-227	-132	-91	-56	-53	-41	-95	-99
8 NOV	-93	-380	-569	-291	-192	-312	-160	-285
15 NOV	-12	-8	-9	39	-5	-32	-141	-24
22 NOV	-55	-55	-31	-49	-60	-84	-31	-52
29 NOV	-77	-131	-182	-253	-246	-752	-652	-328
6 DEC	-270	-295	-174	-378	-31	-279	-325	-250
13 DEC	-253	-49	-23	-26	-52	-53	-317	-110
20 DEC	-49	-8	9	-48	-16	-61	-45	-31
27 DEC	-27	-60	-131	-31	-44	-11	-395	-100



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 57N, 137W

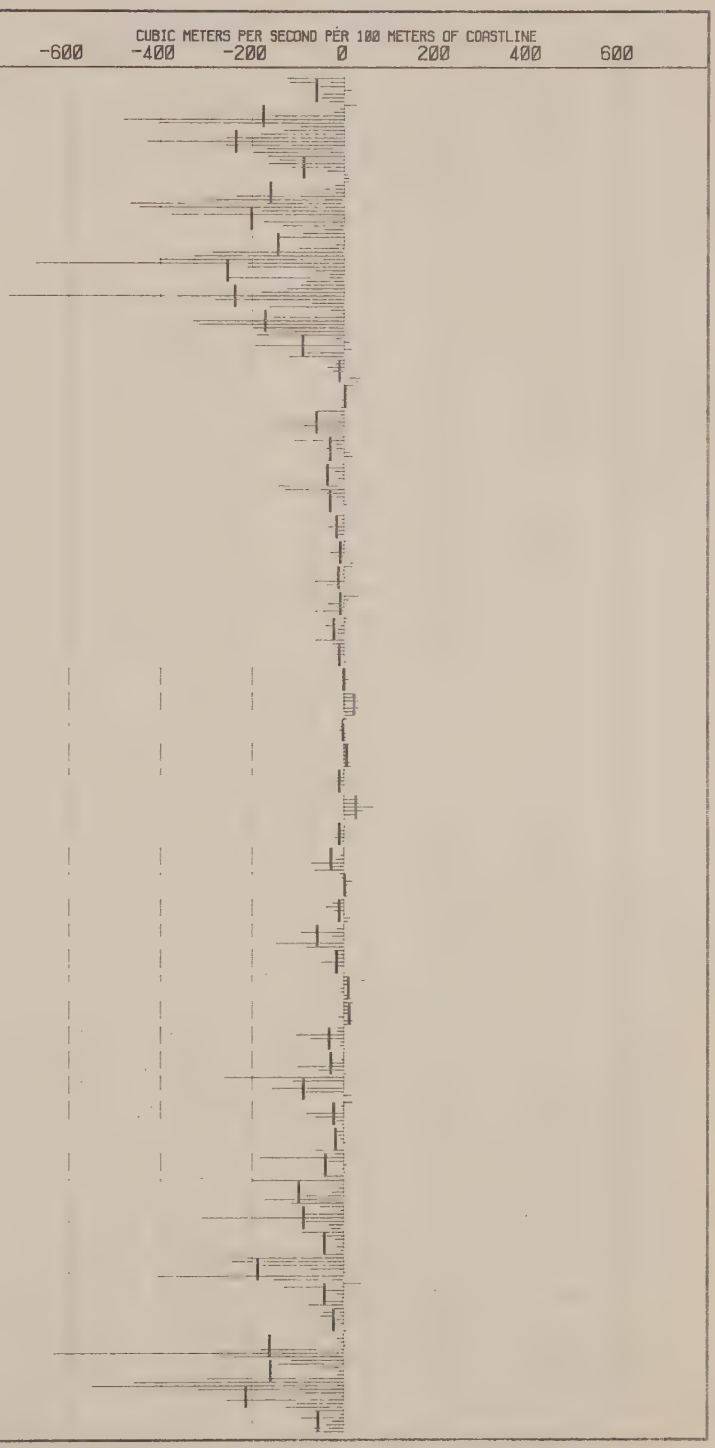
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	-422	-201	-102	-17	1	-72	-268	-155
10 JAN	-171	-93	-200	-262	-434	-371	-334	-267
17 JAN	-408	-164	-41	-30	-57	-1	-3	-100
24 JAN	-84	-788	-322	-229	-102	-235	-212	-282
31 JAN	-227	-44	-57	0	-43	-182	-225	-111
7 FEB	-181	-141	10	19	-190	-45	-150	-97
14 FEB	-93	-8	-6	-301	-86	-246	-281	-146
21 FEB	-86	-28	90	18	3	-4	-4	-1
28 FEB	-126	-325	-32	-32	-8	-87	-28	-91
7 MAR	-64	-119	-39	-122	-80	21	-68	-67
14 MAR	-32	25	-154	-150	-74	16	-28	-57
21 MAR	-74	-139	-158	-2	-4	-14	-156	-78
28 MAR	-34	-19	1	-32	-15	-120	-238	-65
4 APR	-25	-44	-17	-61	-227	-102	-6	-69
11 APR	-36	-158	-424	-43	-88	-68	-83	-129
18 APR	-8	6	-68	-155	-32	3	-29	-40
25 APR	-34	44	34	5	-3	-8	-16	3
2 MAY	-180	4	-4	-28	-127	62	4	-39
9 MAY	-125	-234	-103	-201	-4	20	28	-89
16 MAY	-1	-87	-23	10	-50	-13	-6	-24
23 MAY	-1	16	5	-0	-86	-32	1	-14
30 MAY	-14	-38	-1	12	16	5	-16	-5
6 JUN	-16	-6	-110	-48	-18	-7	-1	-30
13 JUN	17	25	60	30	5	1	-4	19
20 JUN	-15	-15	9	6	16	5	3	1
27 JUN	19	5	-1	1	-18	-31	-8	-5
4 JUL	16	30	27	9	14	3	0	14
11 JUL	-2	28	29	13	-16	-4	4	7
18 JUL	-2	-7	13	32	34	14	-2	12
25 JUL	-12	11	13	23	10	14	9	10
1 AUG	-1	-5	-6	-4	1	4	15	1
8 AUG	26	27	26	14	2	0	-1	13
15 AUG	-11	-39	-53	-92	-116	-84	-27	-60
22 AUG	-88	-68	-48	-18	-4	-43	-150	-60
29 AUG	-44	-28	3	10	-59	-85	-53	-37
5 SEP	-9	-165	-189	-72	-100	-102	-121	-108
12 SEP	-4	23	-2	-166	-55	0	-9	-30
19 SEP	-10	6	0	-2	30	48	31	15
26 SEP	15	60	-1	-4	-40	-15	-18	-1
3 OCT	-32	-62	-13	-62	-249	-74	-89	-83
10 OCT	-71	-47	-5	33	23	-33	-16	-17
17 OCT	15	-11	2	-224	-199	-4	-21	-63
24 OCT	28	37	3	-62	-227	7	-29	-35
31 OCT	9	1	-100	-18	-16	-328	-480	-133
7 NOV	-166	-131	-78	-89	-108	-1	-11	-83
14 NOV	-25	-317	-59	-155	0	7	-221	-110
21 NOV	-6	-147	-249	-183	-109	-30	-112	-120
28 NOV	-15	-74	-70	-117	-28	-58	-14	-54
5 DEC	-4	-118	-189	20	2	-98	-119	-72
12 DEC	-218	-123	-27	-315	-104	-4	41	-107
19 DEC	22	-106	-225	-277	-106	-188	-107	-141
26 DEC	-79	-40	-91	-146	-27	1	47	-48



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1972 AT 57N, 137W

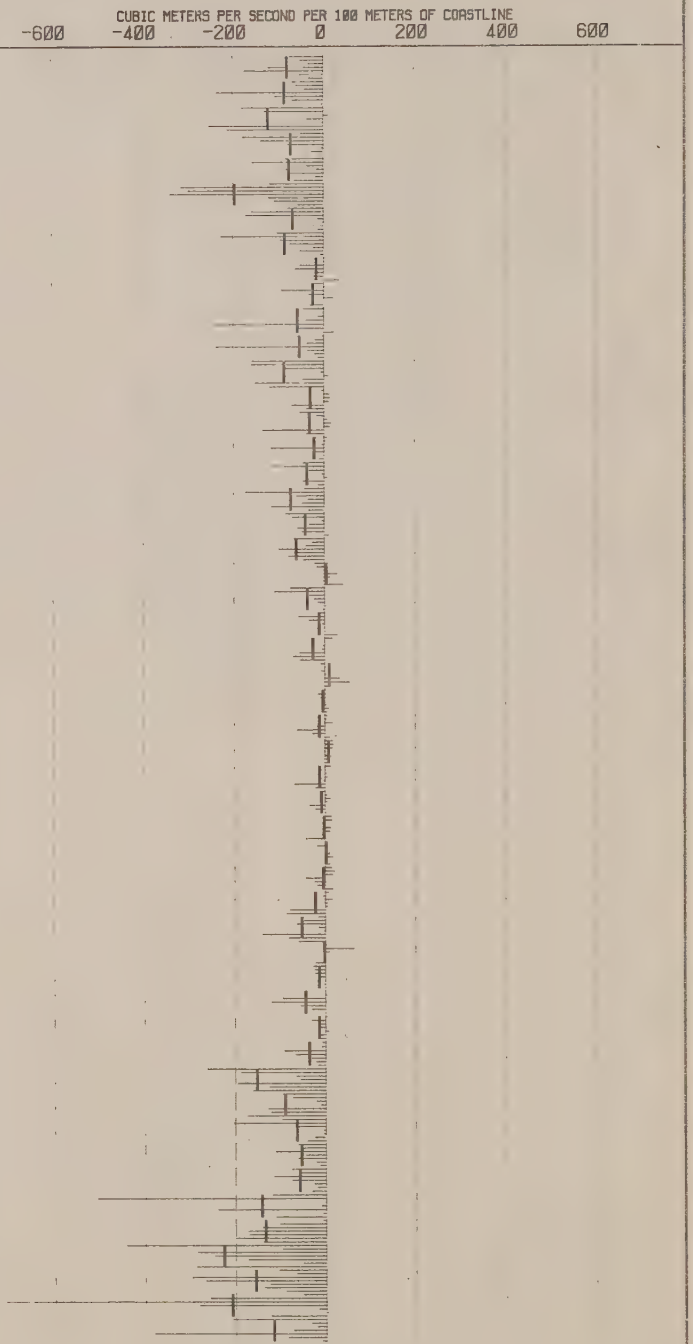
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	-123	-118	-54	15	-46	-50	-33	-58
9 JAN	28	-69	-23	-171	-481	-404	-93	-173
16 JAN	-141	-181	-257	-429	-259	-169	-200	-234
23 JAN	-166	-141	-164	-115	-36	8	9	-86
30 JAN	12	-20	-41	-60	-233	-302	-466	-159
6 FEB	-446	-179	-376	-52	-173	-135	-42	-200
13 FEB	-91	-145	1	-42	-99	-285	-327	-141
20 FEB	-402	-672	-211	-62	-88	-251	-83	-253
27 FEB	-93	-137	-179	-730	-282	-70	-167	-237
5 MAR	-32	-7	-155	-335	-315	-198	-151	-171
12 MAR	-190	-27	13	-196	20	-87	-143	-87
19 MAR	-47	-17	-98	-25	1	35	30	-9
26 MAR	23	6	1	2	-3	5	-6	4
2 APR	-61	-8	-12	-109	-138	-59	-15	-57
9 APR	-18	-108	-26	-37	13	18	-40	-28
16 APR	-5	-42	-20	-8	-15	-2	-149	-34
23 APR	-136	-42	-25	-2	6	10	0	-27
30 APR	-17	-4	-14	-34	-17	-16	1	-14
7 MAY	5	-2	-11	-30	-19	-3	22	-5
14 MAY	17	-3	-5	5	-65	-38	21	-10
21 MAY	70	31	9	-34	-64	-61	-0	-6
28 MAY	5	4	-40	-16	-15	-22	-62	-21
4 JUN	-24	-13	-14	-16	2	5	-2	-9
11 JUN	-3	-0	-1	10	4	-2	1	1
18 JUN	20	28	31	4	33	27	18	23
25 JUN	6	-1	-7	-9	4	4	3	-0
2 JUL	10	6	5	3	2	12	17	8
9 JUL	2	-2	-13	-23	-13	-12	2	-9
16 JUL	-0	31	32	64	40	22	3	27
23 JUL	0	2	-8	-22	-20	-4	-0	-7
30 JUL	1	0	-5	-18	-70	-29	-62	-26
6 AUG	-7	-4	19	9	2	5	9	5
13 AUG	-3	-23	-38	-20	2	15	7	-9
20 AUG	-0	-13	-93	-23	-37	-145	-81	-56
27 AUG	-20	-11	-11	-47	-11	-1	2	-14
3 SEP	12	45	6	-8	-9	13	30	13
10 SEP	20	12	13	8	-10	37	16	14
17 SEP	-12	-13	-102	-72	-6	-8	1	-30
24 SEP	0	1	-5	-26	-99	-54	4	-26
1 OCT	-260	-110	-0	-156	-93	15	-0	-86
8 OCT	18	-3	-1	-80	-60	-14	-3	-20
15 OCT	-3	-16	-13	-5	3	-3	-74	-16
22 OCT	-19	-182	-32	7	-2	2	-38	-38
29 OCT	-197	-46	-11	-24	-102	-172	-117	-96
5 NOV	-51	-8	-89	-310	-83	-32	-26	-86
12 NOV	-90	-47	-43	-3	-13	-28	-62	-41
19 NOV	-249	-244	-177	-71	3	-406	-152	-185
26 NOV	37	-131	-42	-13	-5	-46	-77	-40
3 DEC	-19	-47	-49	-14	-18	-3	7	-20
10 DEC	-2	-15	-6	5	-180	-640	-284	-160
17 DEC	-114	-153	-56	-9	-14	-308	-458	-159
24 DEC	-549	-318	-85	-35	-275	-102	-126	-213
31 DEC	-89	-6	-91	-24	-39	-72	-61	-55



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 57N, 137W

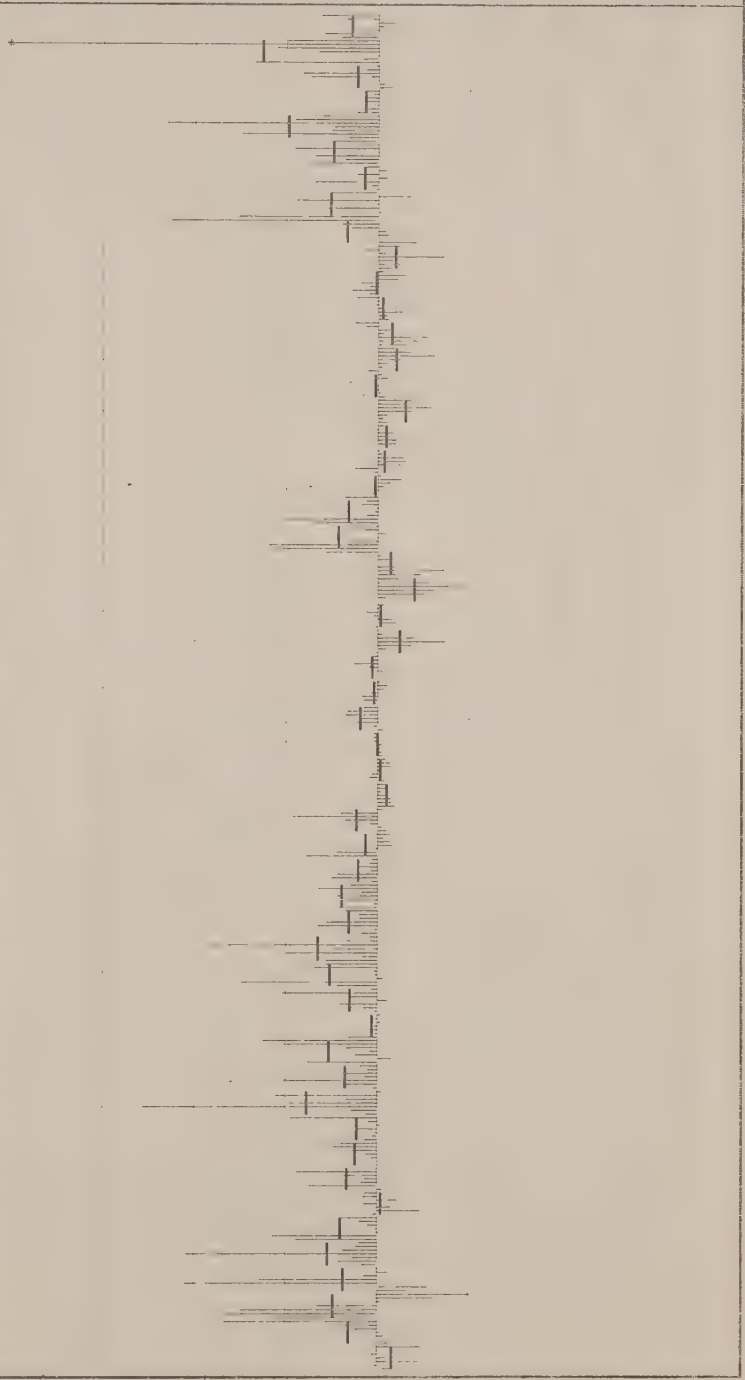
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-75	-50	-36	-131	-174	-51	-32	-79
14 JAN	-68	-60	-41	-241	-106	-69	-5	-84
21 JAN	-180	-131	9	-37	-32	-253	-212	-120
28 JAN	-50	-179	-137	-78	-4	-27	-11	-69
4 FEB	-89	-158	-40	-83	-74	-16	-63	-75
11 FEB	-117	-315	-298	-338	-121	-107	-56	-193
18 FEB	-81	-163	-171	-11	3	-25	-13	-66
25 FEB	-101	-227	-103	-74	-22	-52	-7	-84
4 MAR	20	0	-53	-62	-17	-22	35	-14
11 MAR	-27	2	-91	-31	22	1	-30	-22
18 MAR	-44	0	-12	-38	-254	-60	22	-55
25 MAR	-1	-17	-37	-239	-36	-20	-12	-52
1 APR	-158	-160	-84	-6	10	-46	-152	-85
8 APR	-119	-3	13	12	11	-69	-38	-28
15 APR	-51	-18	6	16	11	-133	-38	-30
22 APR	6	2	-4	-116	-18	-1	-10	-20
29 APR	-47	-117	-32	-4	5	-46	-11	-36
6 MAY	-41	-174	-61	-35	-47	-116	-35	-73
13 MAY	-83	-70	-4	-33	-57	-47	9	-41
20 MAY	-66	-26	-39	-98	-66	-77	-46	-60
27 MAY	-20	-17	0	28	12	-1	40	6
3 JUN	-74	-110	-32	-22	-13	3	-2	-36
10 JUN	-11	-56	-33	-3	-1	-0	28	-11
17 JUN	15	-0	-2	-4	-55	-67	-55	-24
24 JUN	-8	-0	-7	2	31	53	5	11
1 JUL	-5	-14	-8	-5	2	8	5	-2
8 JUL	4	1	17	-16	-60	-25	10	-10
15 JUL	15	19	15	0	5	7	6	10
22 JUL	11	0	1	4	-1	-66	-19	-10
29 JUL	-5	3	12	4	-34	-20	2	-5
5 AUG	14	13	-5	12	10	-6	-42	-1
12 AUG	0	-16	2	10	15	2	11	3
19 AUG	14	21	17	-41	-23	-18	17	-2
26 AUG	5	-5	14	4	4	-77	-83	-20
2 SEP	-14	-46	-61	-14	-3	-138	-79	-51
9 SEP	-58	3	63	8	-0	1	-20	-1
16 SEP	-27	-24	-22	-11	-1	-2	-0	-12
23 SEP	-1	1	-95	-119	-54	-30	0	-42
30 SEP	3	-31	-14	-16	7	-13	-17	-12
7 OCT	-6	-9	-90	-67	-30	-20	-17	-34
14 OCT	-262	-187	-65	-57	-195	-124	-160	-150
21 OCT	-94	-72	-19	-9	-126	-119	-171	-87
28 OCT	-97	-202	-65	-4	-4	-24	-40	-62
4 NOV	-60	-57	-110	-45	-61	-20	-12	-52
11 NOV	-74	-57	-114	-75	-26	-18	-31	-56
18 NOV	-118	-505	-0	-10	-238	-6	-110	-141
25 NOV	-5	-101	-141	-172	-170	-199	-137	-132
2 DEC	-441	-95	-284	-246	-172	-50	-287	-225
9 DEC	-103	-64	-297	-267	-124	-136	-98	-154
16 DEC	-51	-255	-720	-280	-16	3	-122	-206
23 DEC	-207	-32	-19	-73	-380	-84	-8	-115



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 54N, 134W

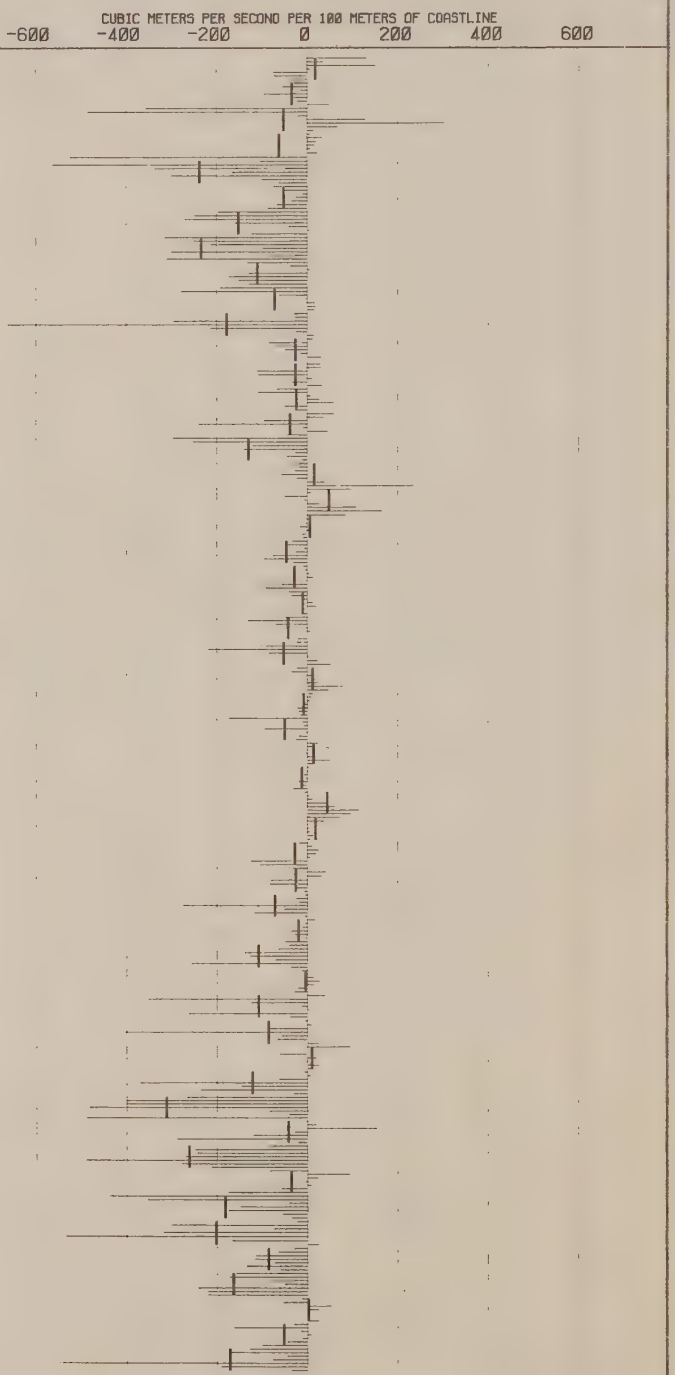
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	-123	-68	35	10	-50	-117	-81	-56
8 JAN	-201	-901	-223	-130	-0	-33	-268	-251
15 JAN	-5	-26	-163	-157	0	13	31	-44
22 JAN	-28	-10	-31	-29	-11	-33	-46	-27
29 JAN	-137	-182	-460	-113	-101	-295	-73	-195
5 FEB	-96	-42	-181	0	-138	-72	-143	-96
12 FEB	-28	16	-47	18	-138	-13	-4	-28
19 FEB	-106	69	-178	-82	-110	4	-306	-101
26 FEB	-484	-78	-58	16	22	41	81	-66
5 MAR	48	-29	14	144	32	47	30	41
12 MAR	11	62	45	-40	-19	-58	-21	-3
19 MAR	-45	-2	-3	41	52	17	23	12
26 MAR	-58	-25	26	15	110	87	70	32
2 APR	34	72	123	61	21	9	-23	43
9 APR	7	21	-64	-5	-5	4	14	-4
16 APR	98	94	115	72	20	9	22	61
23 APR	12	-1	35	23	40	37	0	21
30 APR	2	8	57	61	48	-49	-7	17
7 MAY	5	51	26	13	-7	-44	-72	-4
14 MAY	-25	-34	-2	-6	-23	-206	-138	-62
21 MAY	-56	-29	19	3	-62	-238	-223	-84
28 MAY	-111	7	31	-0	37	144	97	29
4 JUN	45	112	182	124	101	16	1	83
11 JUN	12	3	-24	-8	31	42	-4	7
18 JUN	-1	24	79	146	72	25	-1	49
25 JUN	-10	-8	-51	-18	12	3	1	-10
2 JUL	4	20	16	-12	-45	-31	0	-7
9 JUL	-31	-66	-71	-39	-49	-7	10	-36
16 JUL	-9	-9	-6	8	5	10	10	1
23 JUL	16	26	30	7	-21	-18	17	8
30 JUL	20	19	7	17	27	30	36	22
6 AUG	12	-80	-185	-69	-17	8	21	-44
13 AUG	27	11	28	35	-6	-108	-155	-24
20 AUG	-11	-15	-42	-14	-93	-100	-13	-41
27 AUG	-59	-137	-72	-86	-68	-7	-99	-75
3 SEP	-67	-39	-37	-110	-129	-6	-34	-60
10 SEP	-16	-73	-370	-98	-198	-32	-112	-129
17 SEP	-160	-157	-7	-4	12	-317	-87	-103
24 SEP	-13	-207	-59	23	-83	-57	-5	-57
1 OCT	5	-3	5	-6	-11	-5	-62	-11
8 OCT	-250	-221	-78	-16	-49	30	-150	-105
15 OCT	-40	-22	-89	-29	-212	-71	-7	-67
22 OCT	10	-223	-68	-191	-512	-56	-24	-152
29 OCT	-188	-17	6	-43	-20	-9	-27	-43
5 NOV	-105	-94	-66	-24	-35	1	2	-46
12 NOV	-1	-175	-73	-27	-34	-149	10	-64
19 NOV	-25	-38	44	-28	29	94	-8	10
26 NOV	-83	-37	-20	-2	1	-229	-179	-78
3 DEC	-38	-47	-75	-418	-52	-83	-32	-106
10 DEC	2	24	-27	-256	-422	110	69	-71
17 DEC	203	124	9	-130	-299	-345	-222	-94
24 DEC	-335	-95	-49	7	15	17	25	-59
31 DEC	97	-1	-12	38	99	-5	28	35



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 54N, 134W

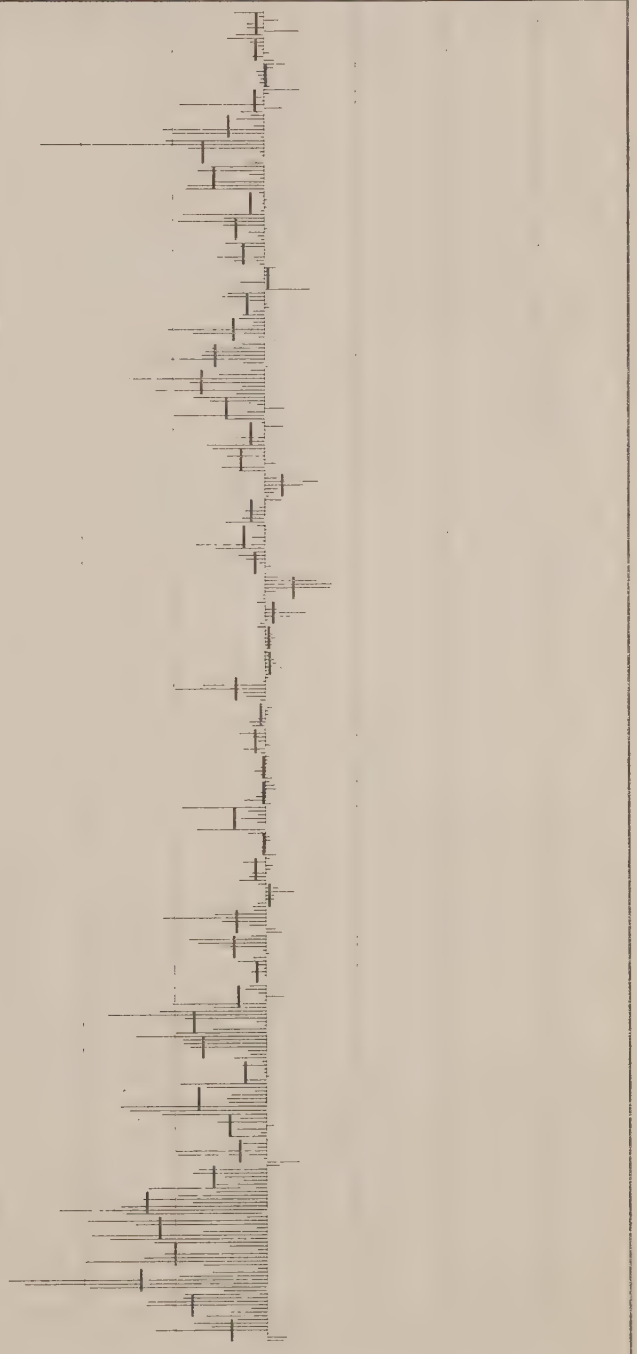
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	130	34	150	5	-74	-71	-41	19
14 JAN	-28	-55	-26	-107	-35	-22	50	-32
21 JAN	-356	-484	-20	128	304	65	14	-50
28 JAN	5	32	20	17	5	22	-524	-60
4 FEB	-103	-562	-336	-171	-301	-100	-80	-236
11 FEB	-75	-49	-10	-38	-34	-65	-85	-51
18 FEB	-197	-249	-269	-181	-40	3	-123	-151
25 FEB	-315	-278	-211	-98	-301	-110	-309	-232
3 MAR	-131	-35	6	-152	-172	-149	-129	-109
10 MAR	-192	-278	-64	-2	16	18	16	-69
17 MAR	-28	-27	-294	-662	-214	-24	13	-177
24 MAR	12	-85	-67	-47	-13	31	0	-24
31 MAR	28	32	-111	-108	11	-52	32	-24
7 APR	-66	-108	8	26	57	-50	-22	-22
14 APR	57	37	-95	-250	-8	43	-43	-37
21 APR	-297	-251	-120	-139	-26	-43	-15	-127
28 APR	-36	-16	-26	-56	-22	37	238	17
5 MAY	100	8	-51	-6	26	109	164	50
12 MAY	84	7	-2	-16	4	-9	-8	8
19 MAY	-31	-45	-5	-23	-74	-93	-30	-43
26 MAY	-9	-5	4	11	-0	-90	-91	-26
2 JUN	-40	-34	-6	11	23	-2	-8	-8
9 JUN	-62	-129	-68	-3	6	-1	-19	-39
16 JUN	-22	-105	-218	-83	3	21	51	-51
23 JUN	-22	-34	9	0	24	78	46	14
30 JUN	12	8	4	-5	-27	-17	-13	-6
7 JUL	-172	-11	-9	-94	-2	-18	-23	-47
14 JUL	22	12	-1	-1	18	53	10	16
21 JUL	1	-0	-7	-3	-19	-19	-30	-10
28 JUL	-6	4	14	43	62	114	97	47
4 AUG	72	37	0	2	4	13	6	19
11 AUG	-17	10	24	18	5	-124	-104	-27
18 AUG	-42	41	29	-80	-81	-23	-6	-23
25 AUG	-4	-24	-19	-275	-50	-116	-5	-71
1 SEP	16	-5	-11	-35	-40	-4	-48	-18
8 SEP	-39	-73	-138	-127	-70	-256	-35	-106
15 SEP	-12	-5	13	26	15	-20	-28	-1
22 SEP	38	-352	-124	-12	1	-262	-38	-107
29 SEP	-3	8	-88	-402	-59	-66	26	-84
6 OCT	93	-1	-61	18	-2	25	6	11
13 OCT	-5	7	-63	-370	-146	-236	-30	-120
20 OCT	-269	-399	-401	-483	-85	-40	-488	-309
27 OCT	-2	19	151	-27	-121	-288	-19	-41
3 NOV	-83	-249	-244	-268	-491	-278	-212	-261
10 NOV	-98	94	23	-4	8	-84	-173	-33
17 NOV	-437	-354	-57	-148	-174	-55	-33	-180
24 NOV	-22	-304	-73	-318	-535	-169	24	-200
1 DEC	-28	-65	-114	-115	-72	-134	-61	-84
8 DEC	-159	-171	-76	-50	-242	-220	-219	-162
15 DEC	-12	-54	52	25	-0	0	24	5
22 DEC	-30	-162	-14	7	-11	-43	-100	-50
29 DEC	-125	-171	-43	-75	-550	-190	-34	-170



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 54N, 134W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-65	-10	32	-35	-35	76	-59	-14
12 JAN	-80	-30	-13	-5	12	-25	22	-17
19 JAN	46	20	-15	-13	-6	-7	15	6
26 JAN	79	13	-19	-4	-184	41	-51	-18
2 FEB	-29	-60	0	-22	-221	-201	-5	-77
9 FEB	-213	-488	-165	-8	-7	-1	-40	-132
16 FEB	-120	-143	-31	-9	-113	-167	-173	-108
23 FEB	-10	-2	6	-5	4	-7	-179	-28
2 MAR	-89	-188	-90	8	-36	-15	-5	-59
9 MAR	-83	-52	1	-1	-103	-66	-8	-45
16 MAR	26	8	11	-12	-52	-9	98	10
23 MAR	-79	-92	-33	8	10	-25	-48	-37
30 MAR	-57	-23	-30	-211	-156	-11	29	-66
6 APR	-62	-114	-151	-141	-234	-45	6	-106
13 APR	-30	-100	-297	-164	-47	-239	-67	-135
20 APR	-157	-117	-16	41	-39	-202	-82	-82
27 APR	-6	40	2	-2	-62	-33	-127	-27
4 MAY	-114	-20	-81	-8	25	-94	-62	-50
11 MAY	1	26	115	85	28	20	11	41
18 MAY	36	-1	-15	-43	-29	-51	-87	-27
25 MAY	-23	1	0	-27	-4	-150	-107	-44
1 JUN	-23	-82	-41	-12	13	9	2	-19
8 JUN	30	111	144	141	27	-4	-4	64
15 JUN	-19	-0	27	87	54	6	-14	20
22 JUN	-17	3	17	24	14	27	6	11
29 JUN	9	7	22	24	11	3	10	12
6 JUL	7	-5	-137	-196	-48	-42	-10	-62
13 JUL	0	15	6	7	-27	-35	-28	-9
20 JUL	-2	-55	-26	-16	12	-48	-9	-21
27 JUL	11	6	4	-9	-25	-20	13	-3
3 AUG	8	21	26	-9	-19	-45	11	-1
10 AUG	-182	-38	-17	-59	-17	-3	-150	-67
17 AUG	-38	8	9	-4	-9	-8	24	-2
24 AUG	8	-49	16	11	-30	-36	-59	-20
31 AUG	-16	25	62	19	18	-18	-27	9
7 SEP	-27	-112	-224	-97	-35	23	33	-63
14 SEP	-32	-169	-148	-102	-9	5	-29	-69
21 SEP	-63	-21	-4	-33	-5	1	1	-18
28 SEP	-36	-47	-15	42	-8	-204	-142	-58
5 OCT	-231	-346	-178	-22	-3	-115	-198	-156
12 OCT	-284	-181	-181	-166	-40	-35	-71	-137
19 OCT	-7	-52	-23	-4	5	-46	-187	-45
26 OCT	-130	-27	-77	-87	-82	-319	-303	-146
2 NOV	-229	-58	-107	16	-73	-12	-79	-77
9 NOV	2	-52	-19	-198	-195	-6	72	-57
16 NOV	28	-147	-162	-93	-51	-109	-259	-113
23 NOV	-110	-195	-270	-161	-317	-459	-314	-261
30 NOV	-43	-394	-286	-23	-139	-389	-344	-231
7 DEC	-246	-92	-21	-228	-269	-399	-138	-199
14 DEC	-21	-119	-191	-567	-530	-388	-97	-273
21 DEC	-181	-184	-259	-263	-36	-80	-134	-163
28 DEC	-66	-175	-121	-245	2	43	35	-75



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

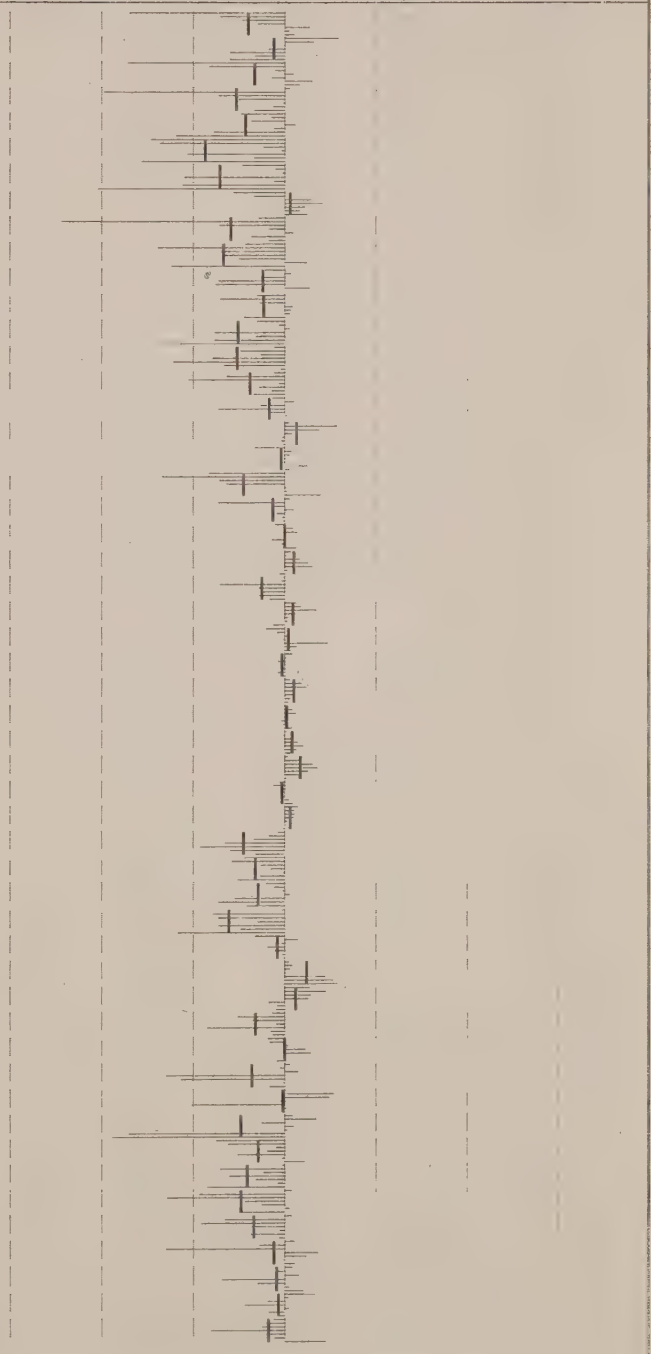
DURING 1970 AT 54N, 134W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	-24	-215	-298	-29	18	113	11	-61
11 JAN	-15	-34	-78	-11	-105	-75	-112	-61
18 JAN	-296	-337	-558	-170	-138	-90	-66	-236
25 JAN	-91	-20	-27	-202	-126	-133	17	-75
1 FEB	-168	-408	-90	-193	-145	-134	-40	-168
8 FEB	-3	-72	-98	-61	-49	-30	-104	-60
15 FEB	-54	-10	-67	-307	-419	-166	-152	-168
22 FEB	-98	-136	-1	12	90	5	92	-22
1 MAR	40	-2	-15	-41	-125	-24	-24	-27
8 MAR	-141	-84	-126	-247	-223	-158	-108	-155
15 MAR	-42	-23	-192	-166	-6	3	-149	-82
22 MAR	-125	20	-86	4	-21	19	23	-24
29 MAR	37	-0	28	34	-80	-53	-41	-11
5 APR	-47	-6	-278	-124	-69	24	-2	-75
12 APR	31	9	-9	-7	-22	-2	38	6
19 APR	46	10	-15	-2	-47	71	69	19
26 APR	32	-10	-29	-12	-106	-16	3	-20
3 MAY	-81	-51	-121	-152	-38	-3	16	-61
10 MAY	24	12	-5	-134	-33	-19	-90	-27
17 MAY	-31	-9	-13	-179	-111	-39	-151	-76
24 MAY	-186	-30	4	-0	-0	-4	-177	-56
31 MAY	-90	-12	-38	-4	-5	6	-10	-22
7 JUN	-16	-23	8	1	11	-13	-1	-5
14 JUN	76	46	5	8	1	-3	-0	19
21 JUN	27	-34	0	-61	-75	-9	17	-19
28 JUN	12	-79	-164	-21	-36	-21	-3	-44
5 JUL	-41	-271	-79	1	10	16	20	-49
12 JUL	1	-39	-20	-0	-46	-133	-15	-36
19 JUL	-6	8	-2	-28	-3	-15	26	-3
26 JUL	29	18	15	12	3	5	10	13
2 AUG	22	-29	-10	6	1	-4	-19	-5
9 AUG	-77	-62	-75	5	-73	-136	-3	-60
16 AUG	-15	-4	-30	-19	-8	-12	45	-6
23 AUG	50	48	14	-3	-1	-30	-25	8
30 AUG	-0	-6	-55	-25	35	-13	14	-7
6 SEP	4	23	7	2	9	5	20	10
13 SEP	47	9	-38	-117	-34	-0	-6	-20
20 SEP	-14	-24	84	17	-129	-80	-137	-40
27 SEP	-92	-50	-66	-33	-2	-2	22	-32
4 OCT	80	52	3	-0	10	-9	29	24
11 OCT	55	32	3	-69	-38	-32	-2	-7
18 OCT	-39	-0	-44	30	-139	51	28	-16
25 OCT	-54	-325	-106	-200	-248	-459	-398	-256
1 NOV	-283	-129	-104	-65	-36	-17	-86	-103
8 NOV	-24	-373	-501	-189	-189	-437	-154	-267
15 NOV	6	-12	25	138	52	16	-85	20
22 NOV	-68	14	32	-39	104	79	-20	15
29 NOV	45	56	-3	-39	-9	-673	-464	-155
6 DEC	-74	-71	-153	-430	2	-396	-356	-211
13 DEC	-244	-44	60	93	33	-6	-170	-40
20 DEC	11	-1	31	-13	-22	-58	-83	-19
27 DEC	-12	-9	-127	-8	-29	-23	-186	-56

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 54N, 134W

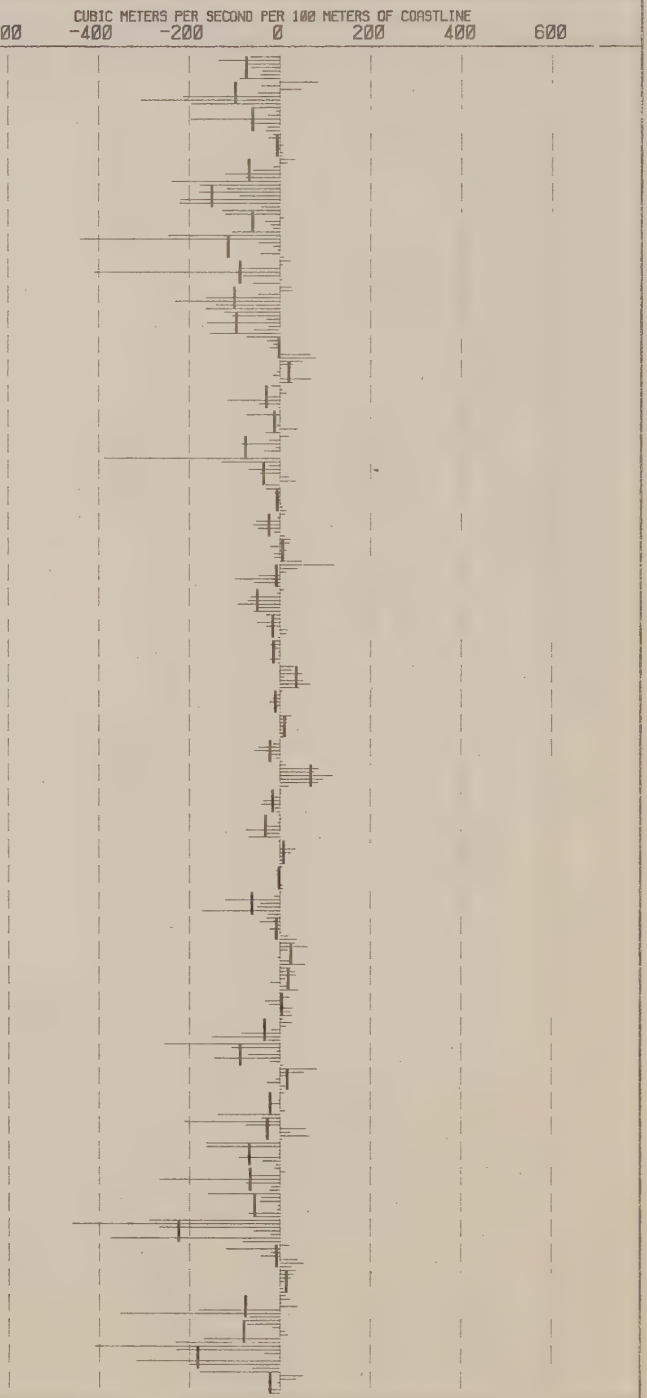
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	-339	-140	-92	-57	54	8	20	-78
10 JAN	116	61	0	-33	-119	-64	-119	-22
17 JAN	-342	-164	-19	19	-29	60	91	-64
24 JAN	10	-394	-145	-101	-2	-25	-66	-103
31 JAN	-94	-28	-71	22	-21	-154	-236	-83
7 FEB	-293	-273	-46	-5	-211	-67	-311	-172
14 FEB	-92	-21	-4	-219	-22	-221	-406	-141
21 FEB	-110	-66	61	85	44	32	48	13
28 FEB	-56	-487	-142	-34	17	-71	-34	-115
7 MAR	-87	-276	-137	-133	-100	48	-246	-133
14 MAR	-42	12	-49	-143	-151	54	-0	-46
21 MAR	-60	-140	-54	16	12	10	-88	-43
28 MAR	-60	-12	9	-151	-61	-151	-270	-99
4 APR	-23	-96	-53	-156	-243	-133	-8	-102
11 APR	-23	-126	-207	-11	-56	-28	-69	-74
18 APR	-27	20	-52	-144	-30	4	2	-32
25 APR	9	114	74	13	-4	-6	-2	28
2 MAY	-78	14	10	3	-49	51	9	-6
9 MAY	-166	-266	-142	-127	1	3	81	-88
16 MAY	11	-144	-26	19	-17	-5	-3	-23
23 MAY	-20	18	28	2	-27	-6	24	3
30 MAY	12	2	82	50	59	5	-10	21
6 JUN	-2	-6	-140	-55	-47	-57	-32	-48
13 JUN	25	34	68	23	7	3	-24	19
20 JUN	-41	-15	6	-2	91	24	5	10
27 JUN	16	1	-13	1	-6	-14	-9	-3
4 JUL	9	37	47	16	25	11	6	21
11 JUL	-0	15	23	2	-6	-2	13	6
18 JUL	1	-1	19	28	40	25	15	18
25 JUL	6	32	59	69	50	37	3	37
1 AUG	-10	-24	-3	-7	-3	8	16	-3
8 AUG	29	20	21	18	5	1	-1	13
15 AUG	-13	-35	-68	-130	-184	-119	-63	-87
22 AUG	-87	-113	-52	-30	-2	-52	-103	-63
29 AUG	-40	-23	-3	11	-109	-143	-83	-56
5 SEP	-7	-157	-144	-57	-144	-95	-232	-119
12 SEP	-63	28	-6	-36	-21	-3	-0	-15
19 SEP	7	16	10	-0	88	106	117	49
26 SEP	54	88	55	49	-34	-15	-18	26
3 OCT	-26	-101	-69	-19	-168	-30	-26	-63
10 OCT	-37	-33	6	44	55	-3	-17	2
17 OCT	10	-11	28	-258	-227	-2	-31	-70
24 OCT	1	105	95	-8	-201	2	-5	-1
31 OCT	15	67	-49	19	5	-340	-376	-94
7 NOV	-148	-122	-19	-37	-103	-4	42	-56
14 NOV	-5	-140	-45	-119	-63	-14	-168	-79
21 NOV	13	-187	-256	-85	-50	10	-98	-93
28 NOV	14	-130	-182	-72	-11	-74	-13	-67
5 DEC	21	-55	-258	72	46	-3	20	-22
12 DEC	16	-13	30	-136	-58	8	41	-16
19 DEC	69	6	-37	-86	8	-33	-12	-12
26 DEC	-24	-39	-48	-159	-40	-21	89	-35



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1972 AT 54N, 134W

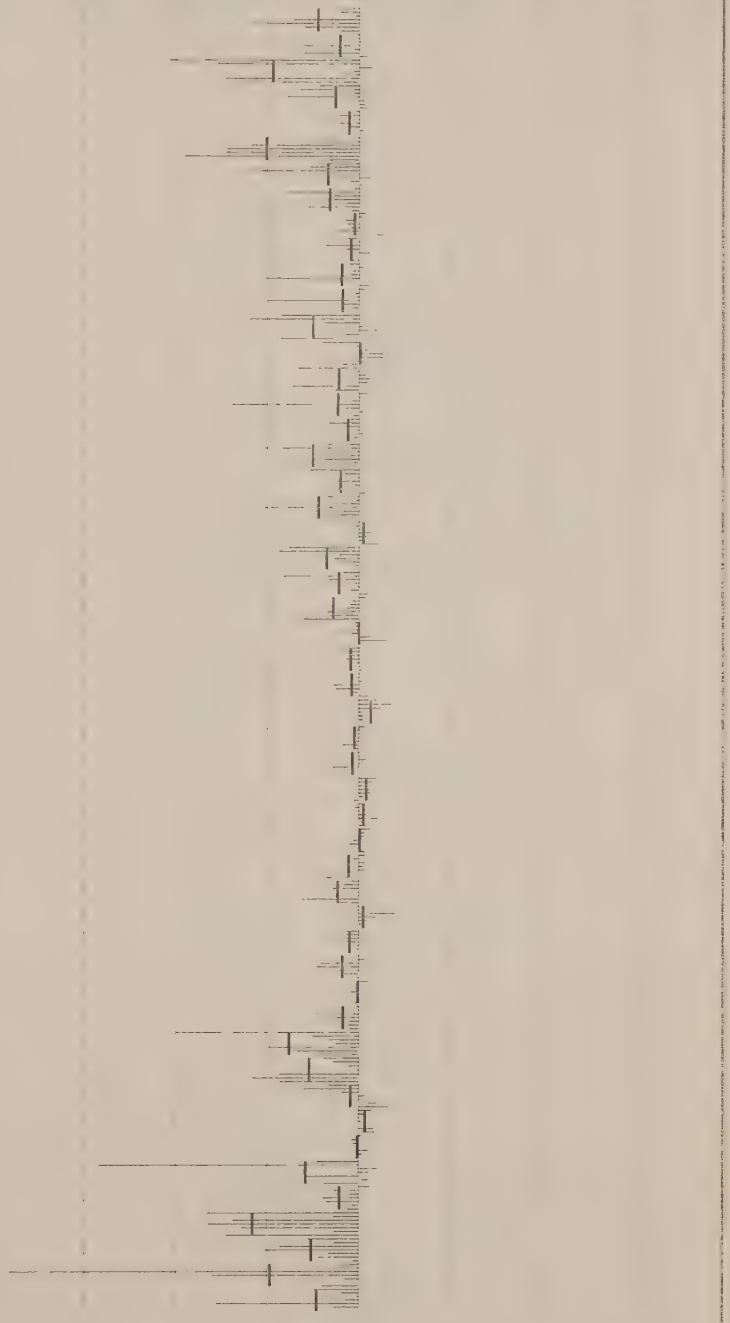
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	-69	-134	-77	-62	-98	-41	-87	-72
9 JAN	83	-39	45	-48	-212	-307	-193	-96
16 JAN	-58	-8	-25	-196	-64	-25	-30	-58
23 JAN	-13	-25	0	8	-6	5	4	-4
30 JAN	32	17	-14	-59	-120	-74	-238	-65
6 FEB	-175	-115	-177	-88	-218	-220	-40	-148
13 FEB	-126	-120	6	-31	-21	-14	-109	-58
20 FEB	-245	-440	-46	-19	-4	-42	8	-112
27 FEB	23	4	-84	-407	-80	4	-57	-86
5 MAR	25	28	-49	-162	-229	-140	-163	-99
12 MAR	-121	-105	-31	-160	-25	-56	-154	-93
19 MAR	-72	-28	-13	-29	-3	66	78	1
26 MAR	50	27	2	-6	-15	67	26	22
2 APR	-18	4	13	-30	-114	-47	-2	-28
9 APR	-0	-73	1	-0	-6	38	-30	-10
16 APR	17	-21	-83	-9	-34	-1	-367	-74
23 APR	-128	-24	-67	-42	18	35	-34	-35
30 APR	-31	-10	-8	-6	2	6	15	-5
7 MAY	10	-5	-51	-58	-49	-12	10	-22
14 MAY	22	20	-19	13	-11	-12	47	9
21 MAY	119	39	14	-46	-98	-56	-7	-5
28 MAY	8	-6	-64	-71	-92	-48	-58	-47
4 JUN	-29	-16	-49	-31	17	14	-4	-14
11 JUN	-16	-20	-16	-2	-3	-21	-4	-12
18 JUN	31	25	49	8	50	67	42	39
25 JUN	4	-12	-14	-22	-3	-0	2	-7
2 JUL	24	15	13	10	2	7	9	11
9 JUL	0	-14	-46	-56	-20	-7	4	-20
16 JUL	11	83	76	117	95	84	19	69
23 JUL	3	3	-9	-35	-39	-11	-6	-14
30 JUL	-1	2	-5	-29	-75	-35	-68	-30
6 AUG	-3	-1	35	23	5	4	10	11
13 AUG	5	-9	-7	-3	0	4	6	-0
20 AUG	1	-12	-120	-41	-49	-172	-27	-60
27 AUG	-29	-44	-5	-22	2	18	37	-6
3 SEP	32	60	16	1	-5	25	54	26
10 SEP	22	33	33	9	-19	19	40	20
17 SEP	4	19	-32	-24	27	22	25	6
24 SEP	8	27	13	-18	-83	-150	-26	-33
1 OCT	-255	-107	-6	-69	-144	-22	6	-85
8 OCT	81	52	14	-8	-29	11	4	18
15 OCT	9	0	-3	-20	0	9	-136	-20
22 OCT	-40	-209	-74	56	21	64	5	-25
29 OCT	-163	-162	-3	-1	-90	-38	-8	-66
5 NOV	-11	19	-62	-267	-74	-18	-22	-63
12 NOV	-159	-40	-44	-5	-6	-68	-56	-54
19 NOV	-289	-458	-267	-59	-20	-375	-81	-221
26 NOV	21	-118	-20	-42	37	50	25	-7
3 DEC	33	31	21	8	0	6	10	16
10 DEC	12	23	2	39	-180	-352	-67	-75
17 DEC	-79	-72	-17	10	16	-167	-231	-77
24 DEC	-408	-227	-34	-1	-317	-199	-70	-179
31 DEC	-175	51	34	-3	-1	-18	-23	-19



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 54N, 134W

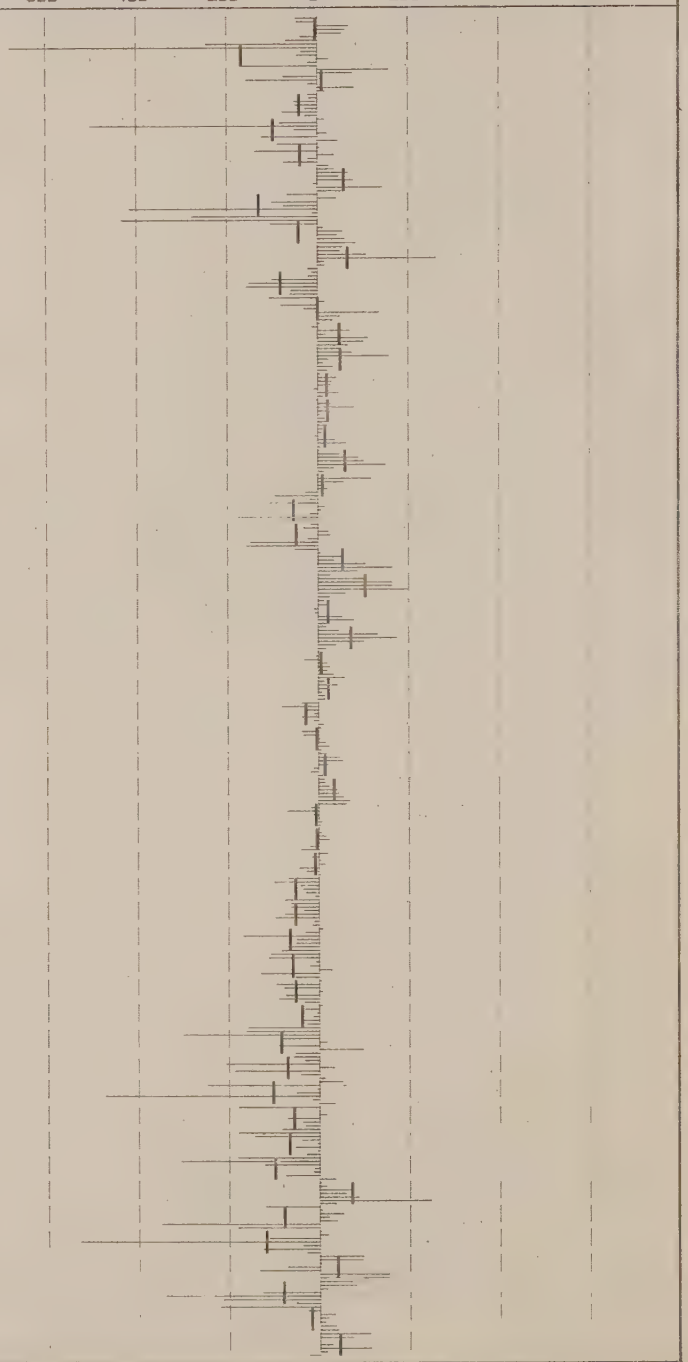
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-39	-40	-9	-144	-230	-118	-41	-89
14 JAN	-4	-2	3	-148	-11	-144	21	-41
21 JAN	-412	-309	28	-15	-34	-301	-257	-186
28 JAN	-86	-129	-28	-155	19	11	17	-50
4 FEB	-7	-72	-5	-42	-21	7	3	-19
11 FEB	-8	-111	-235	-287	-289	-380	-89	-200
18 FEB	-67	-110	-240	-58	25	-18	4	-66
25 FEB	-16	-153	-54	-58	-26	-110	-16	-62
4 MAR	17	6	-28	-26	-19	-57	52	-8
11 MAR	-24	16	-72	-26	21	-6	-19	-16
18 MAR	-20	13	-13	-19	-211	-27	21	-37
25 MAR	15	-7	-3	-197	-31	-14	-2	-34
1 APR	-167	-280	-75	7	39	-27	-179	-97
8 APR	-86	-7	18	68	92	-17	-37	4
15 APR	-132	-26	14	26	18	-143	-52	-42
22 APR	20	3	-15	-276	-29	9	-13	-43
29 APR	-18	-67	-30	-7	9	-24	-12	-21
6 MAY	-69	-213	-78	-35	-75	-163	-51	-98
13 MAY	-107	-31	-2	-50	-41	-54	12	-39
20 MAY	-69	-14	-68	-228	-107	-50	-72	-87
27 MAY	-14	-6	3	29	16	6	50	12
3 JUN	-155	-175	-43	-58	-36	-5	-3	-68
10 JUN	-35	-174	-71	-14	-2	-18	19	-42
17 JUN	13	-22	-19	-27	-68	-136	-120	-54
24 JUN	-7	-6	-48	-16	28	62	7	3
1 JUL	-25	-36	-22	-26	-3	2	3	-15
8 JUL	1	-3	7	-57	-50	-19	21	-14
15 JUL	40	70	48	7	8	8	8	27
22 JUL	14	-8	-9	-2	-5	-35	-9	-8
29 JUL	-2	2	18	1	-57	-43	3	-11
5 AUG	39	31	9	25	24	8	-10	18
12 AUG	9	-7	-0	16	40	10	13	12
19 AUG	24	14	12	-12	-19	-2	13	4
26 AUG	12	-23	13	8	15	-53	-110	-20
2 SEP	-23	-60	-57	0	0	-123	-46	-44
9 SEP	-27	-3	79	36	17	4	-16	13
16 SEP	-25	-39	-48	-15	-2	-3	4	-18
23 SEP	1	16	-81	-90	-44	-30	-3	-33
30 SEP	27	-6	-27	-16	93	-3	-10	-0
7 OCT	-11	-0	-91	-46	-27	-21	-27	-32
14 OCT	-397	-100	-65	-50	-196	-144	-95	-149
21 OCT	-77	-56	-21	-3	-175	-233	-172	-105
28 OCT	-65	-166	-36	15	30	50	66	-15
4 NOV	28	14	-1	4	1	32	34	16
11 NOV	5	-15	-12	-4	24	6	-6	-0
18 NOV	-90	-567	40	22	-119	19	-106	-114
25 NOV	23	-51	-45	-78	-70	-33	-23	-40
2 DEC	-346	-59	-273	-327	-255	-54	-290	-229
9 DEC	-109	-54	-172	-210	-65	-89	-12	-102
16 DEC	-33	-122	-764	-320	-30	2	-79	-192
23 DEC	-167	-36	-3	-63	-311	-54	-0	-91



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 51N, 131W

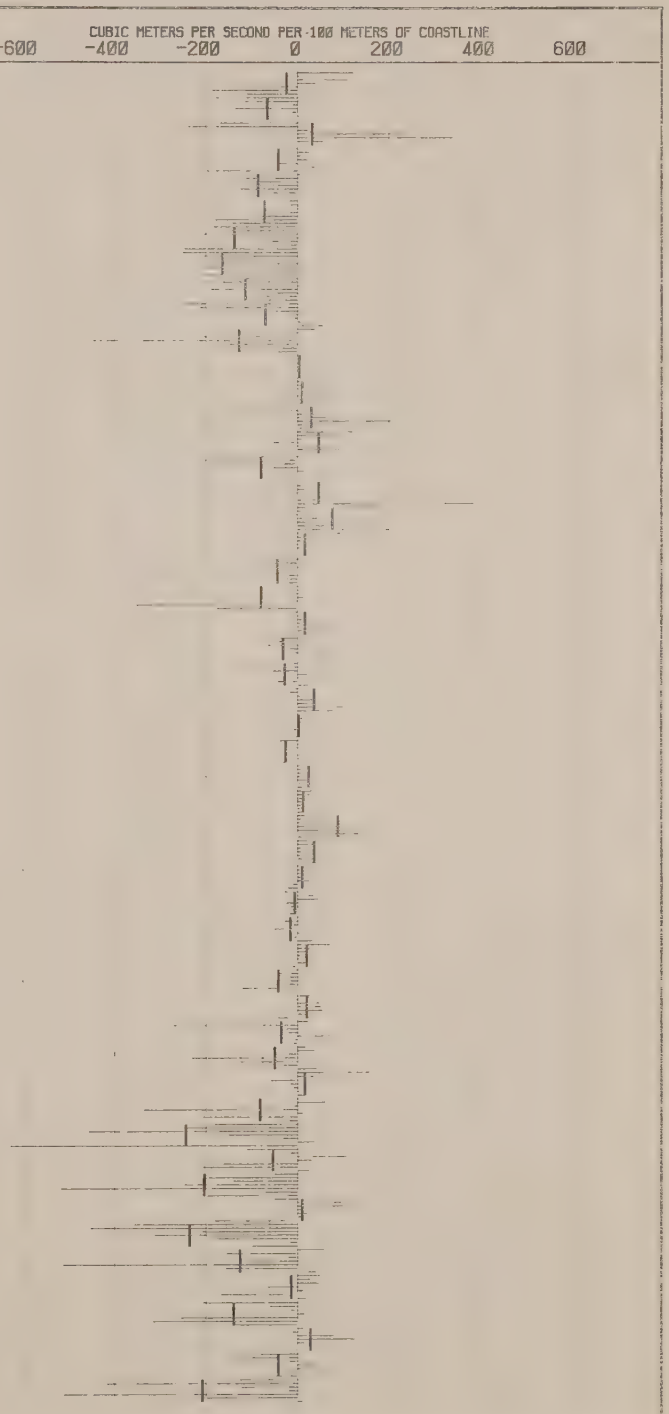
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	-45	-44	69	60	54	-36	-69	-2
8 JAN	-244	-678	-35	-44	24	-21	-170	-167
15 JAN	156	76	-73	-156	-21	79	16	11
22 JAN	-19	-17	-51	-49	-25	-75	-26	-37
29 JAN	14	-81	-499	-49	20	-123	44	-96
5 FEB	-88	5	-135	35	-21	-73	24	-36
12 FEB	39	66	47	77	-8	142	52	59
19 FEB	-67	40	-101	-73	-414	-11	-276	-129
26 FEB	-433	-105	13	53	42	61	84	-41
5 MAR	55	47	107	260	14	15	-20	68
12 MAR	-13	-20	-101	-150	-156	-57	-59	-79
19 MAR	-106	14	-81	-29	133	49	91	2
26 MAR	4	-12	71	19	110	100	66	51
2 APR	52	73	156	24	10	31	21	52
9 APR	3	41	30	28	-8	46	9	21
16 APR	-2	29	79	26	7	14	22	25
23 APR	20	9	6	-7	97	62	3	19
30 APR	3	46	87	100	148	35	14	62
7 MAY	-1	115	57	9	21	-26	-93	12
14 MAY	-28	-107	16	6	-18	-105	-48	-52
21 MAY	-14	-32	22	26	-22	-148	-158	-47
28 MAY	-50	4	51	34	104	162	85	56
4 JUN	26	104	163	163	198	61	23	105
11 JUN	13	21	-8	-7	52	77	22	24
18 JUN	16	43	131	172	100	38	15	74
25 JUN	-1	-5	-30	18	25	18	33	8
2 JUL	57	12	43	20	5	12	14	23
9 JUL	-35	-79	-24	-8	-36	-9	9	-26
16 JUL	4	-36	-32	2	15	22	4	-3
23 JUL	10	48	53	23	-10	-15	8	17
30 JUL	13	14	23	39	44	55	68	37
6 AUG	60	-17	-68	-10	1	7	3	-3
13 AUG	1	5	17	22	-8	-18	-36	-2
20 AUG	19	-14	4	15	-43	-25	1	-6
27 AUG	-66	-87	-40	-35	-27	-9	-74	-50
3 SEP	-60	-59	-33	-73	-85	-11	-14	-49
10 SEP	7	-30	-167	-49	-50	-66	-83	-63
17 SEP	-107	-110	-7	-19	29	-127	-51	-56
24 SEP	5	-94	-76	7	-72	-68	-32	-50
1 OCT	7	-29	-3	-13	-33	-27	-157	-36
8 OCT	-159	-301	-83	15	-89	96	-52	-82
15 OCT	-56	-31	-205	33	-187	-40	12	-68
22 OCT	51	-248	-5	-50	-471	-15	93	-101
29 OCT	-179	-1	14	-69	-36	-31	-82	-55
5 NOV	-179	-142	-39	-4	-52	-4	-28	-64
12 NOV	-180	-306	-120	-10	-12	-74	33	-95
19 NOV	3	15	69	57	86	247	37	73
26 NOV	-117	3	51	19	37	-347	-180	-76
3 DEC	1	10	-110	-528	-36	-123	-29	-115
10 DEC	96	94	2	-69	-131	152	155	43
17 DEC	99	81	16	-127	-343	-215	-51	-77
24 DEC	-221	-25	32	17	12	37	39	-15
31 DEC	110	74	1	27	111	14	-22	45



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 51N, 131W

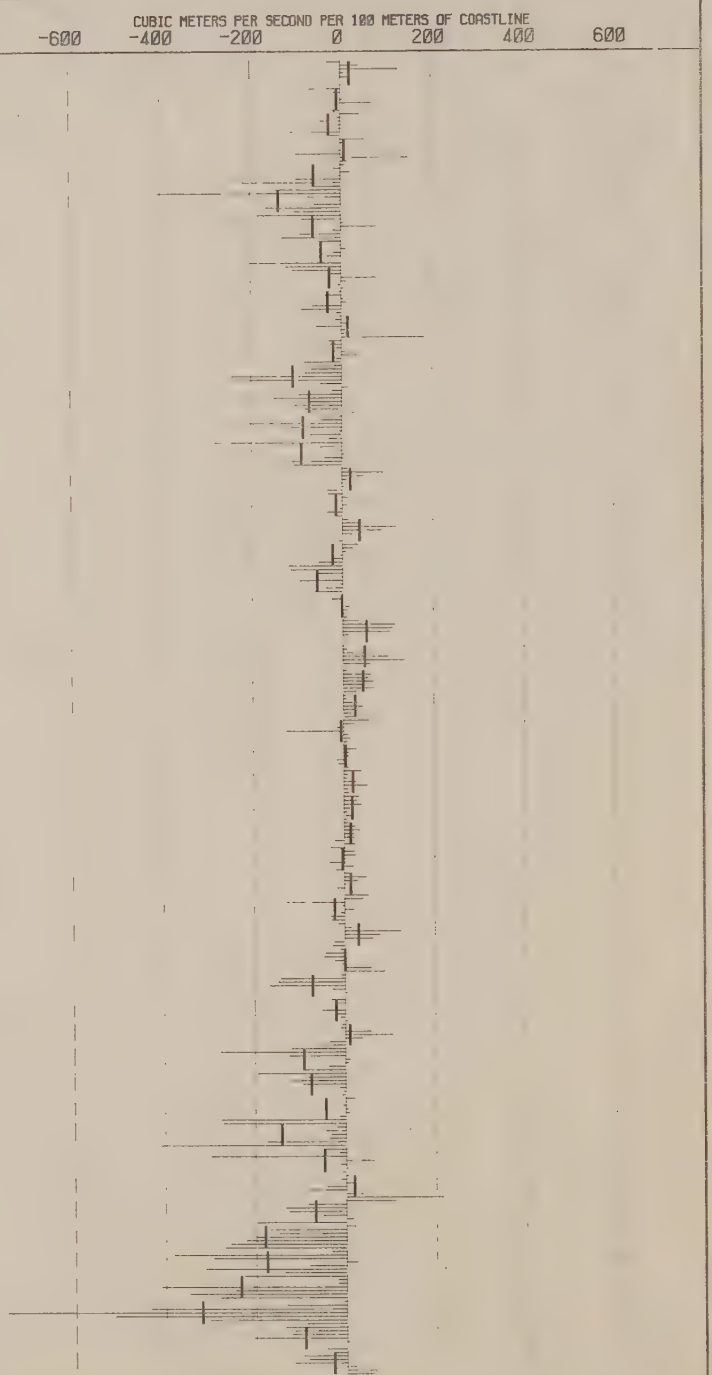
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	123	2	109	38	-126	-186	-111	-22
14 JAN	-179	-115	-9	-141	-10	2	2	-64
21 JAN	-169	-244	22	241	340	56	-5	34
28 JAN	-71	28	7	22	-37	36	-258	-39
4 FEB	3	-113	-124	-101	-125	-53	-75	-84
11 FEB	-22	-14	-1	-47	-85	-181	-143	-70
18 FEB	-181	-149	-249	-61	-54	-15	-246	-136
25 FEB	-250	-220	-164	-46	-194	-44	-219	-162
3 MAR	-166	-162	9	-109	-76	-98	-100	-112
10 MAR	-248	-211	-48	-18	-7	6	54	-67
17 MAR	41	-22	-205	-462	-157	-32	-43	-126
24 MAR	-7	-22	1	10	-9	77	-15	5
31 MAR	4	74	-25	-99	30	28	72	12
7 APR	-36	-147	38	104	206	14	38	31
14 APR	120	76	13	-53	58	92	26	47
21 APR	-197	-225	-33	-57	15	-15	-32	-78
28 APR	-84	6	17	-32	-7	39	394	46
5 MAY	169	19	-4	41	44	60	213	78
12 MAY	92	31	6	-3	4	-3	-2	18
19 MAY	-92	-56	-48	-36	-19	-32	-17	-43
26 MAY	-14	-12	-5	14	-7	-352	-175	-79
2 JUN	-4	0	10	31	72	36	-20	18
9 JUN	-65	-41	-65	-31	-3	-3	-7	-31
16 JUN	-8	-126	-55	22	-1	-42	27	-26
23 JUN	-3	-17	14	32	38	128	77	38
30 JUN	20	13	7	-0	-8	4	-4	4
7 JUL	-49	0	-18	-72	13	3	-46	-24
14 JUL	6	18	7	4	27	90	31	26
21 JUL	29	25	9	12	6	4	13	14
28 JUL	19	73	76	92	106	132	138	91
4 AUG	106	55	6	7	22	34	40	39
11 AUG	-2	4	54	36	27	-9	-20	13
18 AUG	-28	34	46	-23	-25	-15	-15	-4
25 AUG	-0	-45	-9	-77	7	-5	31	-14
1 SEP	69	25	22	4	2	35	-11	21
8 SEP	-20	-44	-95	-15	-46	-119	2	-39
15 SEP	26	-3	45	50	53	20	-41	21
22 SEP	22	-273	-25	-21	71	-4	-8	-34
29 SEP	17	39	-34	-231	-125	-38	42	-47
6 OCT	156	33	-58	-18	-8	3	14	17
13 OCT	-0	61	-8	-396	11	-207	-18	-80
20 OCT	-179	-247	-457	-149	-59	39	-642	-242
27 OCT	-109	-41	108	30	-170	-205	26	-52
3 NOV	-49	-193	-139	-245	-515	-71	-198	-202
10 NOV	-50	114	138	32	22	5	-180	11
17 NOV	-369	-456	-208	-311	-178	-17	-100	-234
24 NOV	59	-167	-20	-115	-513	-156	40	-125
1 DEC	49	26	47	-72	12	-166	21	-12
8 DEC	-206	-60	-14	14	-253	-316	-136	-139
15 DEC	13	-11	79	126	15	1	-14	30
22 DEC	-84	-156	-27	41	45	-29	-69	-40
29 DEC	-151	-419	-122	-18	-512	-228	9	-206



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 51N, 131W

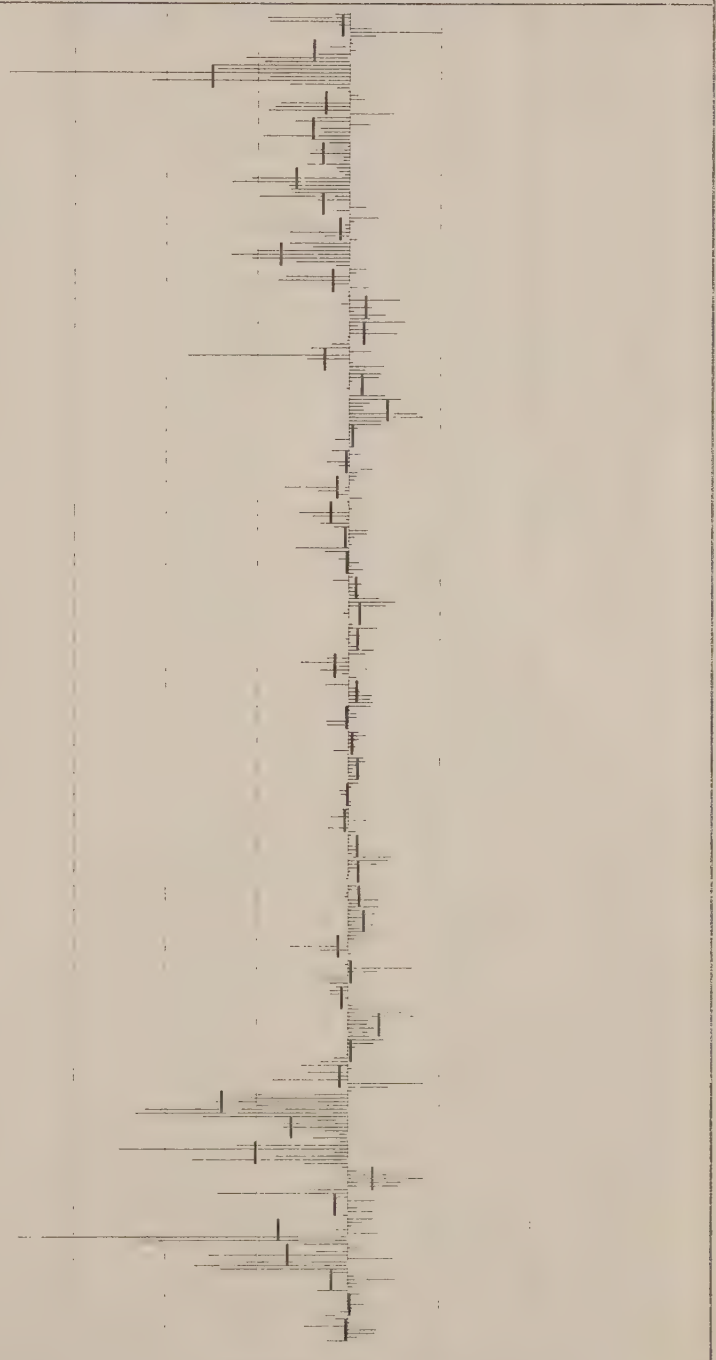
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-29	37	127	6	17	-0	-0	23
12 JAN	-60	-29	1	4	67	-3	-21	-7
19 JAN	43	-7	-44	-4	-14	-111	-28	-24
26 JAN	57	6	-15	-38	-97	147	16	11
2 FEB	12	-15	19	-15	-90	-247	-58	-58
9 FEB	-147	-403	-72	-3	-59	-166	-102	-136
16 FEB	-184	-87	8	80	-22	-90	-129	-61
23 FEB	-50	-2	9	-20	-91	-1	-202	-42
2 MAR	-122	-107	-25	81	10	-6	3	-24
9 MAR	-14	-33	3	13	-69	-80	-9	-28
16 MAR	-27	-12	11	-55	8	7	181	16
23 MAR	-26	-48	-11	36	34	-9	-82	-15
30 MAR	-66	-65	-80	-241	-254	-48	16	-105
6 APR	-21	-94	-151	-70	-100	-79	26	-71
13 APR	-52	-47	-241	-139	-6	-80	-28	-85
20 APR	-282	-48	-8	4	-30	-140	-106	-88
27 APR	12	93	51	10	-3	3	-91	19
4 MAY	-30	13	1	10	-4	-56	-10	-11
11 MAY	15	44	120	86	22	-0	-7	40
18 MAY	34	25	6	-6	-21	-54	-121	-19
25 MAY	-113	-57	-2	-94	-4	-37	-70	-54
1 JUN	-4	-24	-4	15	13	2	8	1
8 JUN	35	114	110	105	12	-2	1	54
15 JUN	-0	8	48	101	135	59	3	51
22 JUN	5	60	54	66	43	71	29	47
29 JUN	3	6	32	42	32	16	61	28
6 JUL	55	27	-14	-126	12	16	7	-3
13 JUL	4	28	11	10	-15	-12	9	5
20 JUL	39	8	7	27	51	9	10	21
27 JUL	32	28	38	12	6	14	4	19
3 AUG	7	25	35	20	22	-20	25	16
10 AUG	-29	22	25	-1	-31	19	-18	-2
17 AUG	16	48	28	2	-16	-11	52	17
24 AUG	40	-127	-3	20	-7	-31	-28	-19
31 AUG	-14	14	124	79	63	-22	-26	31
7 SEP	-11	-42	-47	-21	-7	57	89	3
14 SEP	-7	-141	-147	-166	-27	4	-1	-70
21 SEP	-31	-17	-1	-50	-19	-9	3	-18
28 SEP	-7	-12	56	103	39	-34	-58	12
5 OCT	-120	-276	-125	9	6	-36	-90	-90
12 OCT	-195	-82	-119	-95	-14	-5	-9	-74
19 OCT	20	-1	-7	3	8	-14	-300	-41
26 OCT	-270	-20	-43	-32	-37	-173	-410	-141
2 NOV	-47	-14	-297	62	-12	3	-17	-46
9 NOV	4	-13	22	-43	-82	36	215	20
16 NOV	119	-85	-134	-125	-57	15	-198	-66
23 NOV	20	-179	-148	-199	-222	-255	-268	-178
30 NOV	-32	-383	-294	24	-82	-312	-137	-174
7 DEC	-226	-18	-18	-411	-324	-348	-279	-232
14 DEC	-7	-133	-433	-750	-513	-303	-89	-318
21 DEC	-142	-124	-121	-205	5	2	-45	-90
28 DEC	-28	-95	-84	-116	20	66	59	-25



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 51N, 131W

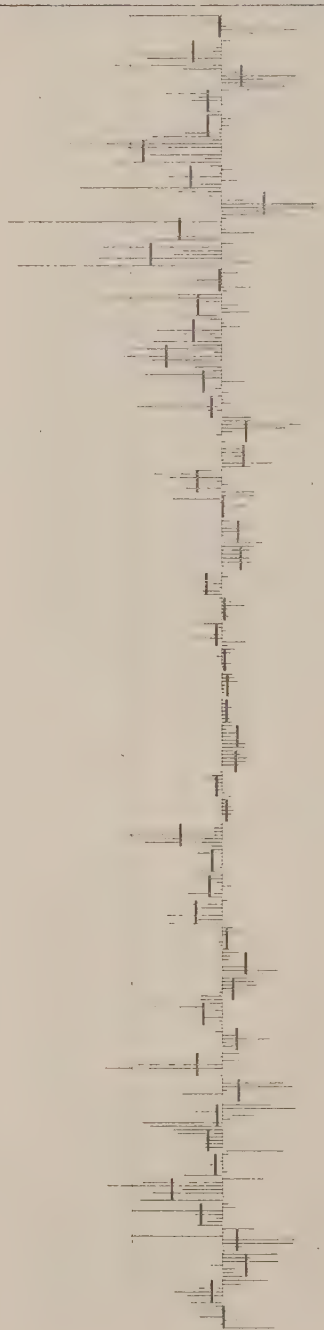
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	-31	-179	-175	-24	48	202	55	-15
11 JAN	3	6	-44	12	-92	-226	-186	-75
18 JAN	-295	-208	-744	-175	-431	-131	-27	-299
25 JAN	-4	19	33	-150	-161	-177	96	-49
1 FEB	-72	-120	46	-63	-56	-191	-84	-77
8 FEB	-43	-42	-75	-86	-39	-14	-94	-56
15 FEB	-27	-25	-11	-214	-255	-131	-128	-113
22 FEB	-125	-195	-70	-1	36	-36	2	-56
1 MAR	62	9	-9	-10	-137	-53	15	-18
8 MAR	-130	-81	-201	-257	-224	-116	-29	-148
15 MAR	37	13	-137	-156	-35	42	-2	-34
22 MAR	-4	109	-18	48	10	78	45	38
29 MAR	123	19	42	104	-4	-4	-38	34
5 APR	-83	49	-352	-92	7	76	34	-52
12 APR	70	63	7	-1	-6	-0	78	30
19 APR	112	44	30	32	148	161	71	85
26 APR	70	17	1	1	-30	3	4	9
3 MAY	-38	25	-7	-49	-21	49	19	-3
10 MAY	15	13	3	-140	-68	-26	28	-25
17 MAY	-5	-3	6	-111	-80	-7	-62	-37
24 MAY	-32	43	39	12	-1	6	-116	-7
31 MAY	-52	-5	-22	23	6	30	10	-1
7 JUN	8	-34	28	16	17	22	68	18
14 JUN	103	81	-1	-13	1	0	8	26
21 JUN	61	4	24	-7	3	17	54	22
28 JUN	37	-48	-105	-20	-61	-14	15	-28
5 JUL	2	-50	15	24	49	47	54	20
12 JUL	47	2	16	19	-48	-45	-0	-1
19 JUL	21	38	23	8	13	-31	-3	10
26 JUL	33	35	18	10	8	26	21	22
2 AUG	22	6	-21	-15	-4	6	5	-0
9 AUG	-13	-4	-39	38	-1	-44	16	-7
16 AUG	7	3	3	16	16	8	97	21
23 AUG	87	62	24	3	-2	-4	0	24
30 AUG	17	19	-4	-20	66	42	65	27
6 SEP	27	57	34	16	54	27	34	36
13 SEP	62	14	-37	-127	-61	5	-1	-20
20 SEP	1	-6	140	65	-66	-43	-40	7
27 SEP	-25	-39	-52	-7	1	12	29	-12
4 OCT	117	144	45	41	56	43	48	70
11 OCT	78	55	17	-1	-5	-31	-58	8
18 OCT	-102	9	-89	-22	-163	164	88	-16
25 OCT	8	-258	-269	-293	-198	-449	-466	-275
1 NOV	-317	-114	-140	-140	-50	-18	-76	-122
8 NOV	-16	-243	-500	-44	-158	-339	-95	-199
15 NOV	-12	22	83	164	117	109	-84	57
22 NOV	-285	-28	60	0	22	54	-10	-27
29 NOV	56	32	8	-26	69	-737	-456	-151
6 DEC	-97	32	-68	-305	99	-233	-344	-131
13 DEC	-277	-51	13	107	28	10	-66	-34
20 DEC	29	2	32	38	10	-17	-53	6
27 DEC	-26	3	-95	62	59	21	-44	-3



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 51N, 131W

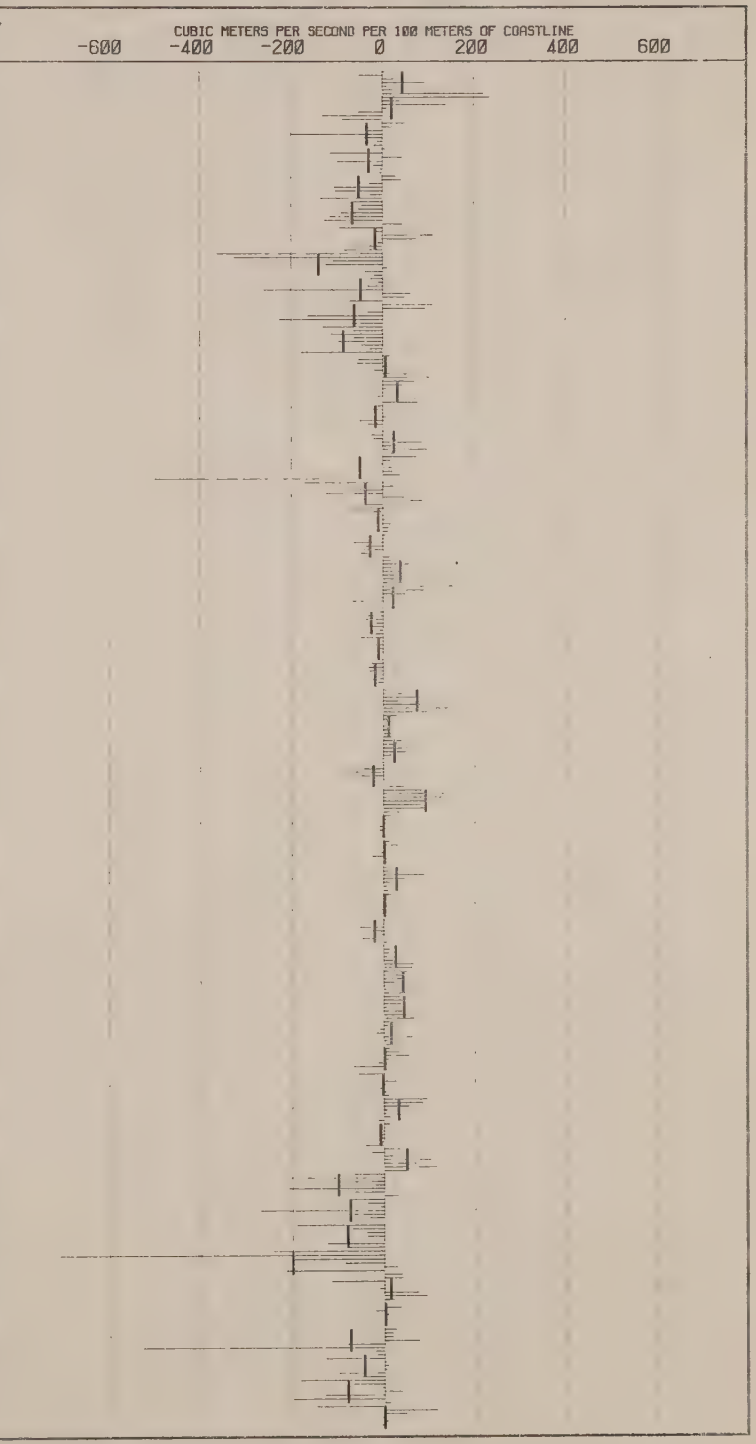
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	-202	-59	-21	18	160	69	19	-1
10 JAN	21	-1	-11	-18	-185	-164	-58	-60
17 JAN	-238	-84	59	165	92	187	139	46
24 JAN	80	-122	-51	-81	7	-2	-26	-28
31 JAN	-28	29	4	38	-4	-79	-152	-27
7 FEB	-200	-350	-208	1	-161	-37	-240	-171
14 FEB	-23	27	-4	-115	34	-61	-325	-67
21 FEB	-94	-26	50	211	229	129	167	95
28 FEB	11	-472	-5	29	71	-98	-168	-90
7 MAR	28	-260	-84	-104	-270	65	-451	-154
14 MAR	1	36	4	-54	-79	65	12	-2
21 MAR	-96	-252	-34	39	13	62	-86	-50
28 MAR	-45	6	41	-141	-102	-26	-150	-60
4 APR	-64	-198	-15	-219	-170	-115	-57	-120
11 APR	-21	-178	-104	53	-13	-14	17	-37
18 APR	-40	3	22	-185	-30	21	66	-21
25 APR	67	177	140	21	-13	-12	8	55
2 MAY	-0	42	73	46	5	113	67	49
9 MAY	-59	-148	-114	-48	16	-77	71	-51
16 MAY	69	-108	-4	54	5	6	4	4
23 MAY	21	22	66	37	4	33	88	39
30 MAY	72	61	43	70	67	4	-7	44
6 JUN	0	14	-84	-50	-7	-42	-54	-32
13 JUN	-6	20	49	14	8	13	-45	7
20 JUN	-50	-14	9	-18	-62	51	13	-10
27 JUN	29	17	-11	1	21	4	-1	9
4 JUL	21	29	36	6	4	4	1	14
11 JUL	-0	10	19	7	14	15	25	13
18 JUL	25	10	31	35	57	52	50	37
25 JUI	34	42	57	53	36	6	-4	32
1 AUG	-25	-35	-10	-16	-14	6	22	-10
8 AUG	12	10	22	26	19	0	-1	12
15 AUG	-4	-17	-44	-214	-140	-170	-39	-90
22 AUG	-25	-54	0	-1	1	-9	-46	-19
29 AUG	-44	-23	-11	21	-16	-78	-27	-26
5 SEP	11	-64	-45	0	-121	-55	-115	-56
12 SEP	22	51	5	1	-7	-5	14	12
19 SEP	37	15	15	0	81	123	100	53
26 SEP	72	71	79	60	-6	-46	-49	26
3 OCT	-28	-159	-43	2	-41	-5	-3	-40
10 OCT	-1	-16	34	106	79	30	0	33
17 OCT	39	-16	60	-187	-261	-12	-5	-54
24 OCT	3	140	154	10	-87	25	26	39
31 OCT	108	162	-63	72	16	-204	-159	-10
7 NOV	-108	-100	-30	-30	-39	-40	133	-30
14 NOV	11	-10	-3	-27	2	10	-84	-14
21 NOV	89	-176	-260	-88	-153	2	-181	-109
28 NOV	15	30	-200	-59	-15	-35	-55	-46
5 DEC	69	2	-201	159	155	45	5	33
12 DEC	121	64	123	-26	28	23	45	54
19 DEC	102	49	-51	-106	-77	-2	-71	-22
26 DEC	-42	-32	2	-50	32	-4	116	3



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1972 AT 51N, 131W

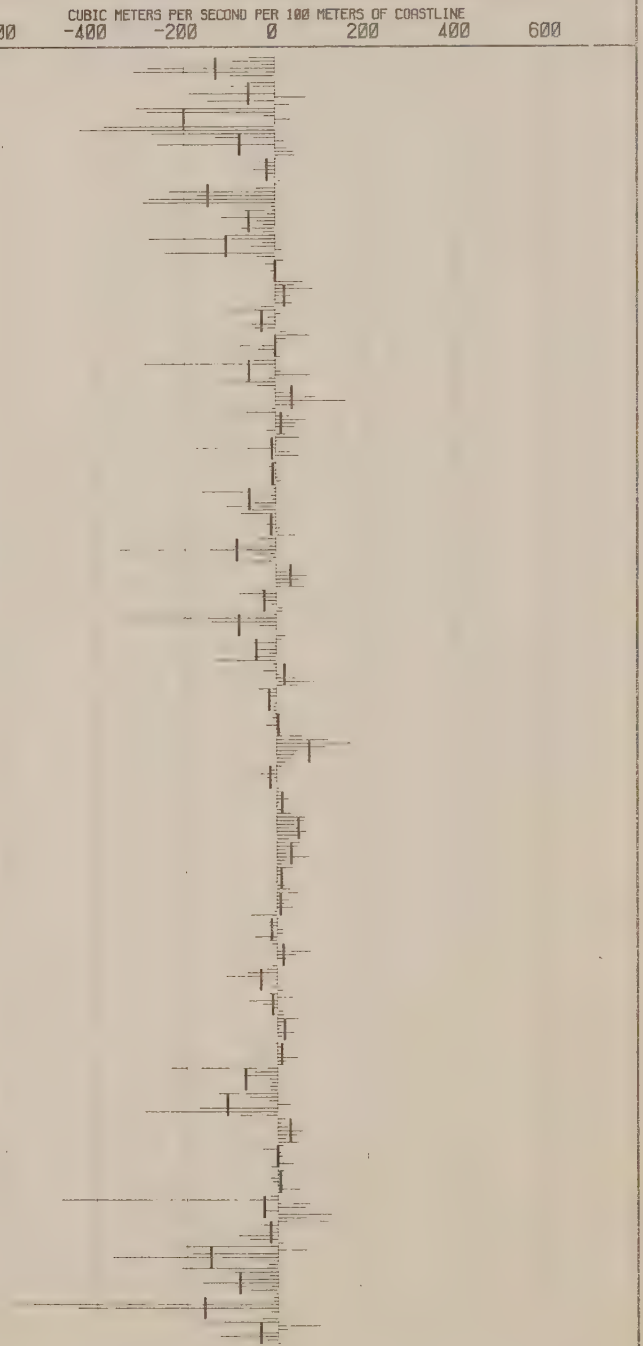
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	5	-52	23	92	0	24	219	46
9 JAN	233	35	140	8	-52	-130	-87	21
16 JAN	50	33	-35	-199	-38	-10	-19	-31
23 JAN	4	-113	42	-97	-22	-4	-6	-28
30 JAN	28	40	-27	-105	-102	-46	-136	-50
6 FEB	-62	-45	-52	-89	-114	-126	41	-64
13 FEB	-93	-13	110	74	-10	-72	-80	-13
20 FEB	-362	-324	-100	-123	10	-38	-17	-138
27 FEB	-26	-9	-32	-285	60	47	-72	-45
5 MAR	108	92	-31	-165	-226	-67	-131	-60
12 MAR	-64	-117	-62	-95	-46	-28	-177	-84
19 MAR	13	-52	-55	10	-18	51	102	7
26 MAR	70	41	8	0	-34	71	76	33
2 APR	-10	-21	2	9	-51	-31	1	-14
9 APR	2	-25	-20	87	19	95	25	26
16 APR	72	16	-5	22	20	36	-499	-48
23 APR	-170	24	-74	-125	46	85	-33	-35
30 APR	-80	-21	0	4	10	13	11	-8
7 MAY	4	-2	-63	-39	-42	-49	15	-25
14 MAY	20	56	17	46	23	25	86	39
21 MAY	153	88	48	-16	-66	-31	-11	24
28 MAY	-6	-58	-38	-14	-24	-9	-16	-24
4 JUN	-48	0	-17	-7	22	1	-3	-7
11 JUN	-23	-33	-31	-10	-6	-12	2	-16
18 JUN	54	40	90	33	60	142	99	77
25 JUN	29	12	1	12	15	15	21	15
2 JUL	38	27	53	50	17	-3	-1	26
9 JUL	-1	-41	-103	-47	1	3	44	-21
16 JUL	84	146	126	91	85	94	95	94
23 JUL	18	4	3	-13	-7	2	2	1
30 JUL	12	30	11	-4	-24	2	0	4
6 AUG	15	32	90	49	14	6	9	31
13 AUG	17	5	1	6	-7	-1	3	3
20 AUG	1	-5	-53	-24	-9	-46	6	-19
27 AUG	-2	13	15	6	34	65	61	28
3 SEP	51	76	49	21	2	27	76	43
10 SEP	34	47	36	30	39	63	67	45
17 SEP	34	21	-8	-42	61	29	36	19
24 SEP	11	33	54	11	-12	-66	1	5
1 OCT	-56	24	26	3	-9	4	9	0
8 OCT	93	85	54	6	3	14	-12	35
15 OCT	11	1	1	-5	-6	-5	-39	-6
22 OCT	34	-26	19	103	70	116	53	53
29 OCT	-65	-224	-101	-20	-209	-95	33	-97
5 NOV	-76	-36	-9	-276	-77	-32	1	-72
12 NOV	-191	-70	-39	-36	-3	-124	-80	-78
19 NOV	-248	-715	-195	-86	28	-213	38	-199
26 NOV	41	-114	1	-10	73	92	24	15
3 DEC	0	36	-19	8	3	2	-0	4
10 DEC	25	19	19	75	-80	-528	-31	-72
17 DEC	-24	-128	3	8	4	-99	-52	-41
24 DEC	-185	-69	-3	41	-131	-215	13	-78
31 DEC	-149	115	49	-4	6	-6	-3	1



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 51N, 131W

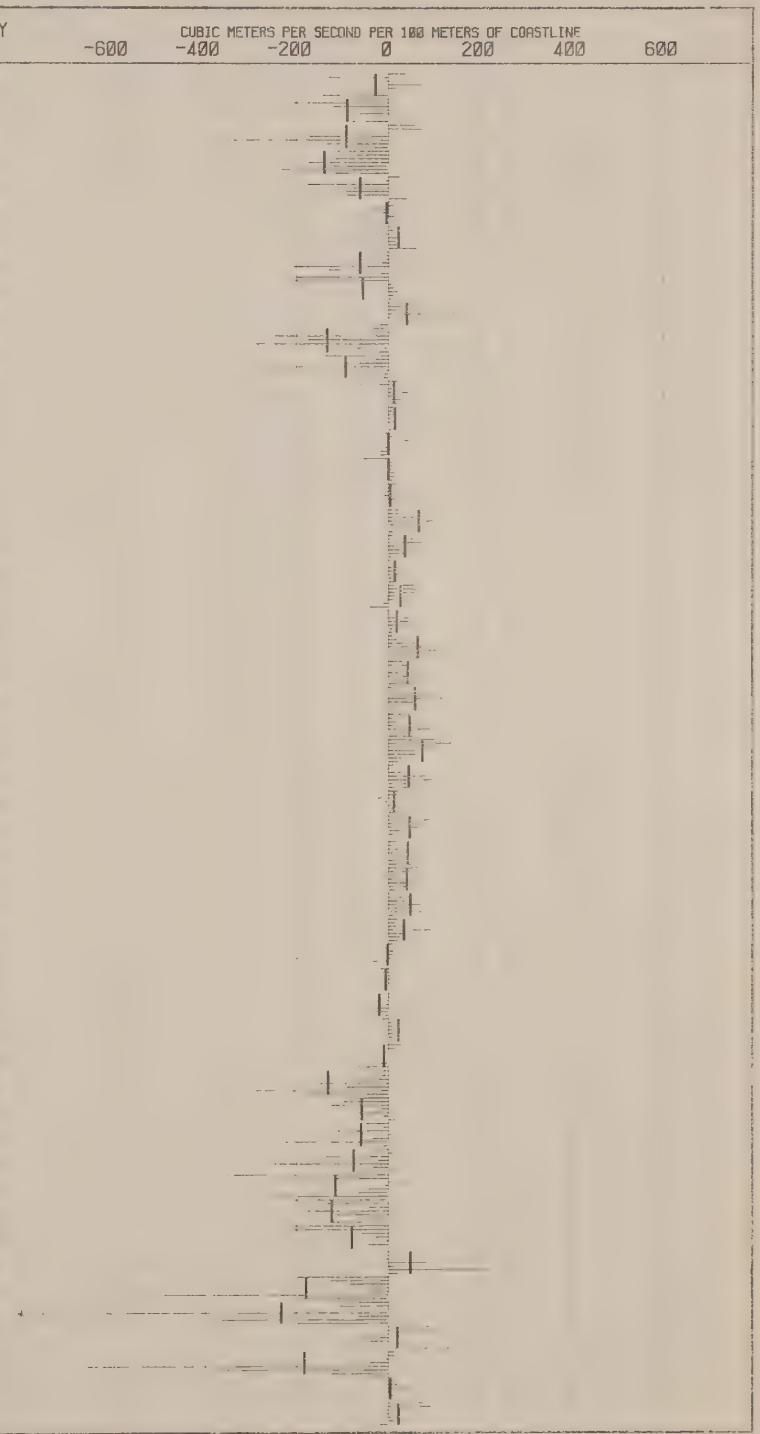
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-55	-92	-46	-280	-309	-103	-9	-128
14 JAN	-52	-96	1	-191	68	-149	32	-55
21 JAN	-307	-281	-24	33	2	-376	-430	-198
28 JAN	-273	-133	21	-259	29	44	45	-75
4 FEB	2	-35	-26	-50	-15	-2	13	-16
11 FEB	6	-42	-237	-173	-278	-290	-8	-146
18 FEB	-92	-15	-118	-40	-25	-74	-27	-56
25 FEB	-106	-277	-27	-57	14	-246	-41	-106
4 MAR	17	-23	-1	-11	-0	-26	60	2
11 MAR	42	82	23	33	-27	35	-30	23
18 MAR	-114	12	-15	-3	-58	-44	27	-28
25 MAR	78	24	20	-79	-38	-8	12	2
1 APR	-51	-288	-16	12	78	-21	-111	-57
8 APR	-39	-11	37	90	154	42	-8	38
15 APR	-89	29	69	43	43	-21	22	14
22 APR	52	6	-8	-175	30	50	2	-6
29 APR	-2	-13	-23	-3	4	15	-5	-4
6 MAY	-9	-162	-12	-6	-47	-110	-52	-57
13 MAY	-76	-11	1	-20	7	5	41	-8
20 MAY	-37	-2	-90	-344	-46	-8	-57	-84
27 MAY	-0	-0	25	70	50	32	65	34
3 JUN	-37	-81	-47	-21	-12	15	13	-24
10 JUN	-49	-329	-141	-36	1	-21	19	-79
17 JUN	13	-53	-10	-43	-17	-48	-133	-42
24 JUN	-7	-2	-28	7	44	83	47	21
1 JUL	-41	-19	-16	3	-10	-6	-5	-14
8 JUL	-2	-11	13	-21	-1	13	56	7
15 JUL	114	163	110	49	37	34	17	75
22 JUL	14	-15	-61	-21	0	-0	3	-11
29 JUL	8	7	26	6	2	13	32	13
5 AUG	63	62	39	46	65	46	26	49
12 AUG	50	49	21	21	72	21	10	35
19 AUG	36	11	11	-0	-10	15	27	13
26 AUG	47	5	29	17	34	-5	-57	10
2 SEP	4	-24	-17	13	15	-47	-16	-10
9 SEP	-11	-2	76	41	18	-1	-12	16
16 SEP	-23	-66	-113	-34	-2	-14	13	-34
23 SEP	-18	34	-63	-32	-7	13	14	-8
30 SEP	47	21	9	3	97	11	3	19
7 OCT	-5	5	2	6	45	22	9	12
14 OCT	-236	-50	-74	-33	-36	-16	-26	-67
21 OCT	-142	-59	-39	28	-172	-292	-81	-108
28 OCT	16	9	23	56	42	23	47	31
4 NOV	12	-32	6	9	2	33	-14	3
11 NOV	14	8	-17	-12	17	47	4	9
18 NOV	-16	-482	85	60	-26	117	65	-28
25 NOV	114	-39	-5	-34	-85	-62	13	-14
2 DEC	-244	64	-189	-363	-47	-19	-226	-146
9 DEC	-104	-64	-88	-166	-91	-60	-4	-82
16 DEC	-9	-24	-588	-442	-17	-1	-35	-159
23 DEC	-171	96	21	-57	-127	-23	7	-37



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 48N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	37	-132	-11	74	18	-23	-144	-26
8 JAN	-67	-206	-120	-28	-91	-17	-80	-87
15 JAN	60	74	-0	-173	-378	-133	-75	-89
22 JAN	-112	-71	-141	-174	-125	-232	-116	-139
29 JAN	23	-7	-175	-114	-92	-91	33	-60
5 FEB	-6	13	-34	-12	14	24	-9	-1
12 FEB	-16	64	-28	28	19	35	61	23
19 FEB	-20	-19	-4	-15	-205	-130	-16	-59
26 FEB	-222	-216	6	19	25	10	3	-54
5 MAR	27	79	74	150	1	-2	-32	42
12 MAR	-37	-32	-248	-194	-200	-103	-21	-132
19 MAR	-137	-47	-98	-295	-47	-11	-11	-92
26 MAR	18	-72	52	45	11	28	20	15
2 APR	9	40	11	3	4	43	3	16
9 APR	-6	11	49	-1	-7	-20	-18	1
16 APR	-54	9	10	5	15	14	7	1
23 APR	20	22	-14	-11	16	5	8	6
30 APR	27	72	123	98	72	43	35	67
7 MAY	9	97	75	12	27	35	7	37
14 MAY	0	0	26	31	31	6	15	16
21 MAY	65	62	57	48	9	-10	-40	27
28 MAY	-1	0	43	42	33	6	10	19
4 JUN	0	45	78	80	107	84	66	67
11 JUN	30	46	40	20	42	66	50	43
18 JUN	29	64	94	117	52	25	33	59
25 JUN	53	37	20	26	92	52	53	48
2 JUL	102	144	102	66	58	29	34	77
9 JUL	10	-2	28	82	95	52	59	46
16 JUL	40	27	-23	-12	15	35	21	15
23 JUL	42	105	60	66	26	14	14	46
30 JUL	39	24	24	43	40	81	55	45
6 AUG	67	72	25	14	39	59	18	42
13 AUG	29	47	35	71	51	73	40	50
20 AUG	20	18	34	92	36	24	25	36
27 AUG	9	-9	10	17	3	-35	-0	-1
3 SEP	-23	-16	2	2	7	5	1	-3
10 SEP	1	3	-26	-6	-33	-54	-6	-17
17 SEP	-14	25	18	10	99	25	2	24
24 SEP	30	15	-9	15	1	-40	-66	-9
1 OCT	-78	-43	-62	-165	-92	-208	-101	-130
8 OCT	-88	-98	-125	-19	-69	-11	14	-56
15 OCT	-47	-9	-111	28	-35	-225	-12	-59
22 OCT	-35	11	-136	-23	-254	-106	27	-74
29 OCT	-352	-113	50	-8	-42	-67	-260	-113
5 NOV	-213	-133	-42	-178	-112	-48	-126	-122
12 NOV	-211	-220	-58	-26	-5	-43	16	-78
19 NOV	2	15	-5	84	14	219	23	50
26 NOV	-199	-126	-84	-37	-36	-562	-202	-178
3 DEC	-95	-110	31	-802	-65	-376	-208	-232
10 DEC	80	106	-15	-69	-75	-12	132	22
17 DEC	12	12	-16	-84	-690	-303	-124	-182
24 DEC	-58	16	17	50	4	13	4	7
31 DEC	77	92	-4	-10	47	16	-54	24



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

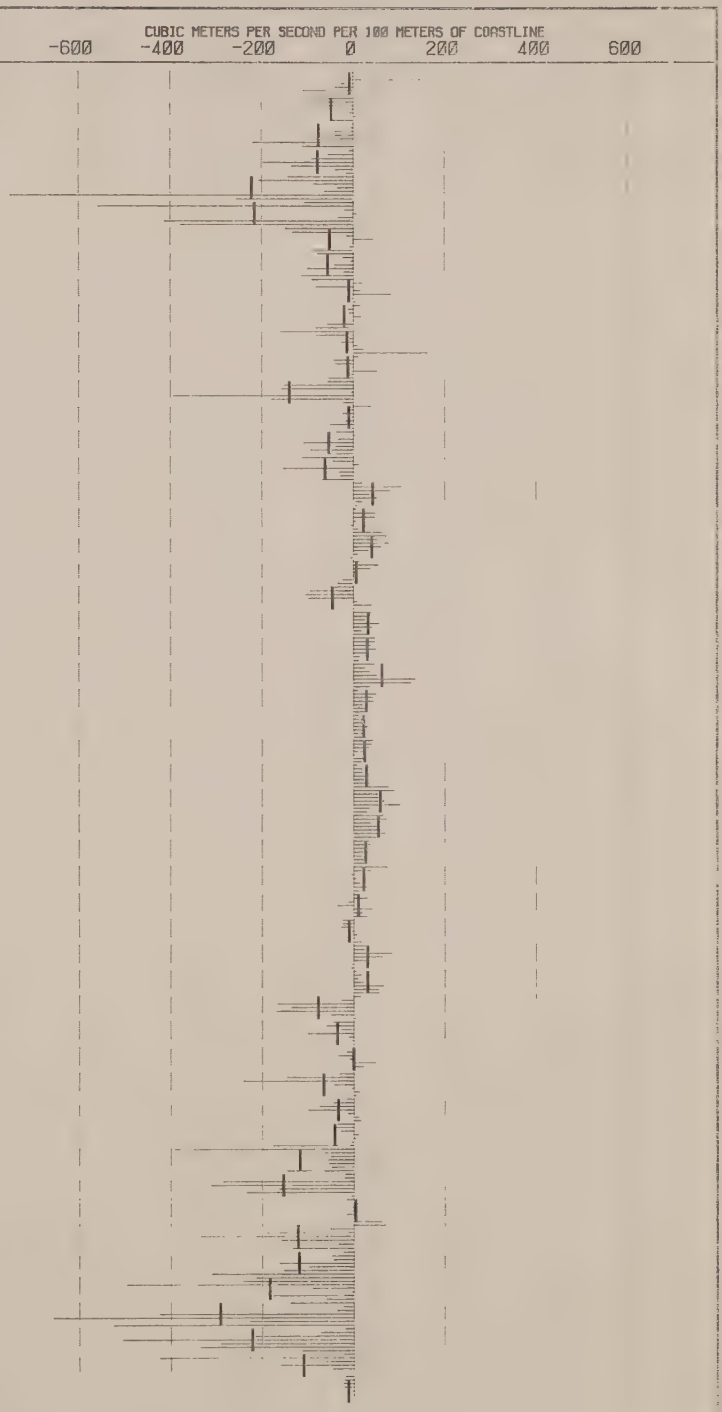
DURING 1968 AT 48N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-65	-64	-60	16	-213	-850	-802	-291
14 JAN	-376	-300	-140	-453	-468	-197	-264	-314
21 JAN	-25	-110	-47	209	59	53	-74	9
28 JAN	-208	-66	-122	-125	-169	-184	-286	-166
4 FEB	-10	-44	-169	-157	-116	-142	-109	-107
11 FEB	-20	-56	-95	-101	-148	-191	-356	-130
18 FEB	-230	-31	-184	-44	-222	-162	-83	-136
25 FEB	-162	-131	-156	-64	-92	-13	-6	-92
3 MAR	-73	-174	-110	-53	1	9	-10	-60
10 MAR	-66	-306	-35	-83	-109	-133	30	-100
17 MAR	54	-13	-53	-210	-234	-71	-130	-94
24 MAR	-61	45	-115	8	-13	107	-4	-5
31 MAR	-23	25	34	-33	3	66	84	22
7 APR	20	-7	10	129	244	76	-37	62
14 APR	-14	65	51	-4	96	96	51	40
21 APR	1	-73	6	-66	-3	3	-7	-20
28 APR	1	33	144	-6	17	36	202	61
5 MAY	51	29	32	23	20	36	106	43
12 MAY	68	28	22	21	17	26	6	27
19 MAY	-30	-33	-61	-17	5	3	44	-13
26 MAY	2	2	27	47	16	-110	-95	-16
2 JUN	43	52	54	78	99	76	31	62
9 JUN	-8	43	4	-52	-6	-0	16	-0
16 JUN	27	14	42	92	31	-18	16	29
23 JUN	19	12	-2	28	86	67	52	37
30 JUN	30	7	15	17	80	81	80	46
7 JUL	47	54	34	-7	-11	39	-11	20
14 JUL	-13	5	17	34	30	52	62	27
21 JUL	87	67	43	48	55	45	63	58
28 JUL	68	88	29	18	67	69	88	60
4 AUG	110	49	24	48	17	30	47	46
11 AUG	53	35	22	59	35	16	16	34
18 AUG	-4	-2	7	8	-45	-18	-14	-10
25 AUG	-3	-40	-23	2	92	6	25	-0
1 SEP	77	43	30	10	1	52	17	33
8 SEP	7	-5	-14	19	0	-89	-34	-17
15 SEP	10	-54	37	31	19	25	5	10
22 SEP	-45	-7	-6	0	77	56	8	12
29 SEP	17	106	53	-28	-90	15	-86	-2
6 OCT	70	19	-2	-130	-30	-59	-33	-23
13 OCT	-193	-69	9	-333	8	-114	-61	-99
20 OCT	-22	-218	-124	-100	-102	12	-301	-133
27 OCT	-285	-264	-173	28	-29	-268	-12	-143
3 NOV	-5	-133	-48	-397	-450	-48	-36	-160
10 NOV	-114	-155	79	24	-20	62	-203	-47
17 NOV	-480	-193	-367	-136	-295	-46	-144	-237
24 NOV	24	-57	-218	-12	-286	-1	-162	-102
1 DEC	34	-117	54	-39	-12	-238	-51	-53
8 DEC	-297	-212	3	49	-198	-811	-389	-265
15 DEC	-42	6	-48	120	15	-5	-77	-4
22 DEC	-368	-369	-48	23	46	10	-43	-107
29 DEC	-271	-932	-667	-138	-216	-306	-59	-370

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 48N, 125W

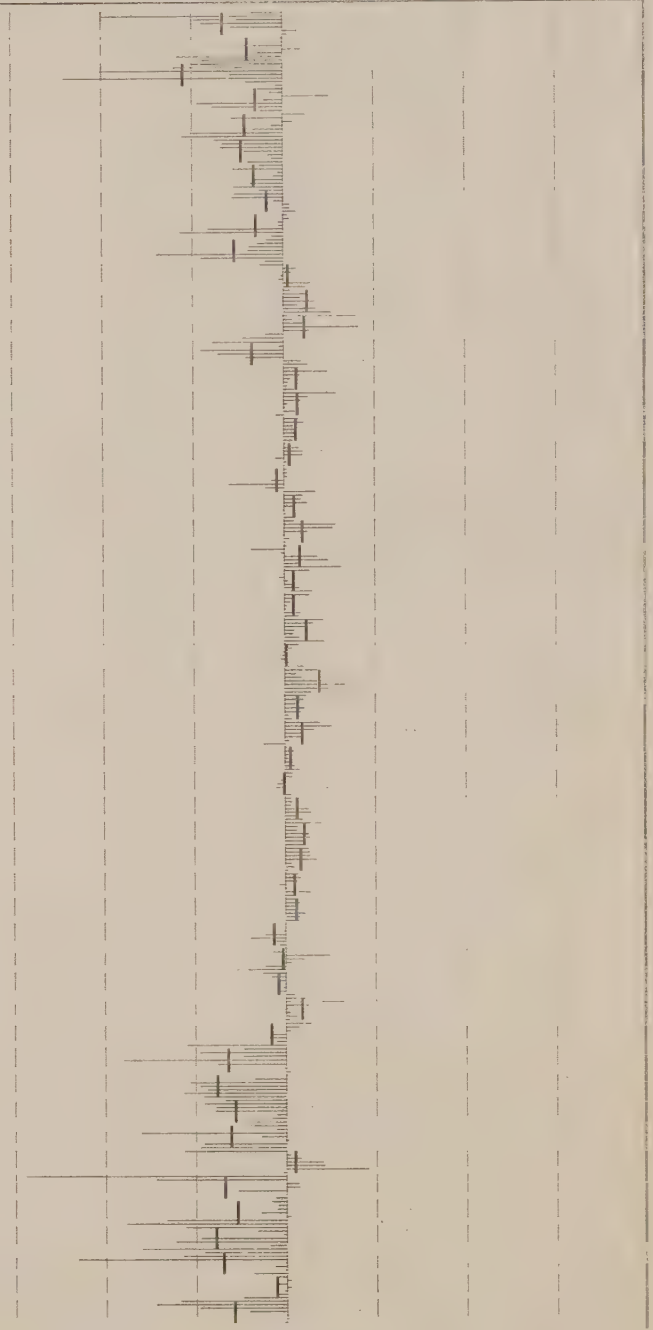
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-2	13	146	-26	-40	-113	-14	-5
12 JAN	-93	-75	-109	-2	-5	17	-47	-45
19 JAN	-6	-4	-41	-42	-98	-219	-110	-74
26 JAN	-7	-55	-90	-196	-134	-39	-14	-77
2 FEB	-142	-206	-87	-33	-63	-748	-256	-219
9 FEB	-107	-557	-17	7	-33	-412	-378	-214
16 FEB	-148	-132	-13	42	0	-6	-87	-49
23 FEB	-77	-22	-3	-41	-100	-20	-111	-54
2 MAR	-91	18	-79	13	83	-1	5	-8
9 MAR	14	-11	-7	16	1	-57	-83	-18
16 MAR	-158	-80	-7	-26	8	24	162	-11
23 MAR	10	-41	-98	-1	52	-3	-53	-11
30 MAR	-56	-151	-155	-3	-393	-178	-22	-137
6 APR	37	-4	-22	-3	-16	-49	-1	-8
13 APR	-38	1	-32	-107	-38	-93	-53	-51
20 APR	-110	-45	11	-151	-29	-28	-66	-60
27 APR	19	103	77	34	50	18	8	44
4 MAY	4	46	45	4	-5	9	65	24
11 MAY	73	53	76	59	32	8	-5	42
18 MAY	14	53	35	7	-0	-21	-35	8
25 MAY	-49	-94	-104	-99	5	39	1	-43
1 JUN	36	33	24	56	41	16	32	34
8 JUN	46	46	37	47	25	11	10	32
15 JUN	44	24	34	50	134	124	34	64
22 JUN	7	47	44	43	18	28	23	30
29 JUN	10	28	24	31	21	24	34	25
6 JUL	43	38	32	26	-2	23	15	25
13 JUL	7	18	17	28	28	34	77	30
20 JUL	69	51	53	66	101	34	28	60
27 JUL	63	71	36	50	55	67	48	56
3 AUG	32	35	31	29	15	21	28	27
10 AUG	74	36	-3	4	13	28	10	23
17 AUG	5	31	-9	-33	40	19	27	11
24 AUG	-22	-25	-27	-2	5	1	17	-8
31 AUG	32	22	83	61	29	-1	-4	32
7 SEP	5	17	7	22	64	53	57	32
14 SEP	15	25	-165	-135	-167	-49	1	-75
21 SEP	-45	-59	-26	-99	-9	-2	0	-34
28 SEP	-1	-13	-31	-9	48	21	-1	2
5 OCT	-30	-147	-240	-42	-4	13	3	-64
12 OCT	-26	-44	-74	-98	-13	11	13	-33
19 OCT	-57	-43	-33	9	3	-7	-176	-40
26 OCT	-393	-64	-50	-56	-54	-48	-146	-116
2 NOV	-48	-21	-283	-310	-161	-234	-4	-152
9 NOV	-14	14	-2	3	-15	2	60	7
16 NOV	68	-53	-190	-334	-158	-39	-134	-119
23 NOV	-21	-47	-44	-161	-97	-151	-310	-119
30 NOV	-213	-243	-496	-90	-4	-175	-60	-183
7 DEC	-137	-22	-35	-424	-656	-226	-523	-289
14 DEC	-13	-72	-214	-504	-291	-334	-112	-221
21 DEC	-81	-425	-60	-160	-45	31	-18	-109
28 DEC	-23	-22	-20	-3	-0	-2	4	-9



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 48N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	-70	-399	-195	-177	-111	31	10	-130
11 JAN	-1	-3	-89	39	-65	-232	-184	-76
18 JAN	-199	-239	-401	-113	-482	-81	-14	-219
25 JAN	-55	-27	101	-99	-189	-154	-48	-59
1 FEB	48	-112	20	-23	-80	-203	-219	-81
8 FEB	-150	-132	-136	-84	-32	-25	-76	-91
15 FEB	-51	-109	-10	-20	-62	-71	-108	-62
22 FEB	-52	-106	-110	-21	13	14	28	-33
1 MAR	8	13	-10	-7	-163	-227	-25	-59
8 MAR	-36	-56	-74	-77	-278	-179	-38	-105
15 MAR	-51	27	16	-4	-9	58	48	12
22 MAR	14	49	36	71	30	69	103	53
29 MAR	161	45	42	163	56	-38	-90	49
5 APR	-157	-8	-181	-145	-81	38	52	-69
12 APR	32	96	33	14	8	9	22	31
19 APR	113	53	38	7	1	23	-15	32
26 APR	31	43	19	25	26	28	18	27
3 MAY	2	33	40	40	-18	5	1	14
10 MAY	4	6	6	-27	-120	-40	68	-15
17 MAY	41	37	50	22	-3	2	21	24
24 MAY	20	112	105	51	-2	10	1	42
31 MAY	4	-72	-5	73	97	32	125	36
7 JUN	54	-0	-10	7	18	32	60	23
14 JUN	54	23	11	3	2	33	30	22
21 JUN	83	61	46	21	19	33	87	50
28 JUN	30	15	-56	-12	-7	10	56	5
5 JUL	79	24	36	117	132	97	58	78
12 JUL	46	40	22	41	33	7	14	29
19 JUL	77	102	65	36	38	8	-45	40
26 JUL	2	19	6	7	11	20	33	14
2 AUG	16	15	-9	-17	-19	-2	12	-1
9 AUG	11	14	9	51	56	25	37	29
16 AUG	78	25	24	49	54	38	44	45
23 AUG	51	52	54	69	11	18	3	37
30 AUG	28	32	25	-12	2	54	20	21
6 SEP	19	29	19	21	43	30	27	27
13 SEP	-0	-1	-1	-45	-76	-28	-12	-23
20 SEP	10	-41	95	41	12	-44	-107	-5
27 SEP	-51	-30	-11	-1	-4	-14	17	-13
4 OCT	44	129	50	2	10	26	6	38
11 OCT	59	28	7	-31	-37	-21	-218	-31
18 OCT	-92	-190	-95	-359	-150	-2	8	-126
25 OCT	3	-69	-213	-191	-174	-225	-182	-150
1 NOV	-134	-181	-154	-156	-21	-30	-88	-109
8 NOV	-79	-23	-320	-54	4	-180	-189	-120
15 NOV	-225	10	31	81	84	101	-7	22
22 NOV	-576	-289	25	28	-105	0	-25	-134
29 NOV	-32	-17	-21	-57	7	-265	-353	-105
6 DEC	-221	-65	-6	-188	-244	-37	-320	-154
13 DEC	-183	-229	-460	-3	-23	-2	-72	-139
20 DEC	-21	8	-17	9	-3	-21	-96	-20
27 DEC	-235	-288	-193	-82	2	1	-5	-114



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

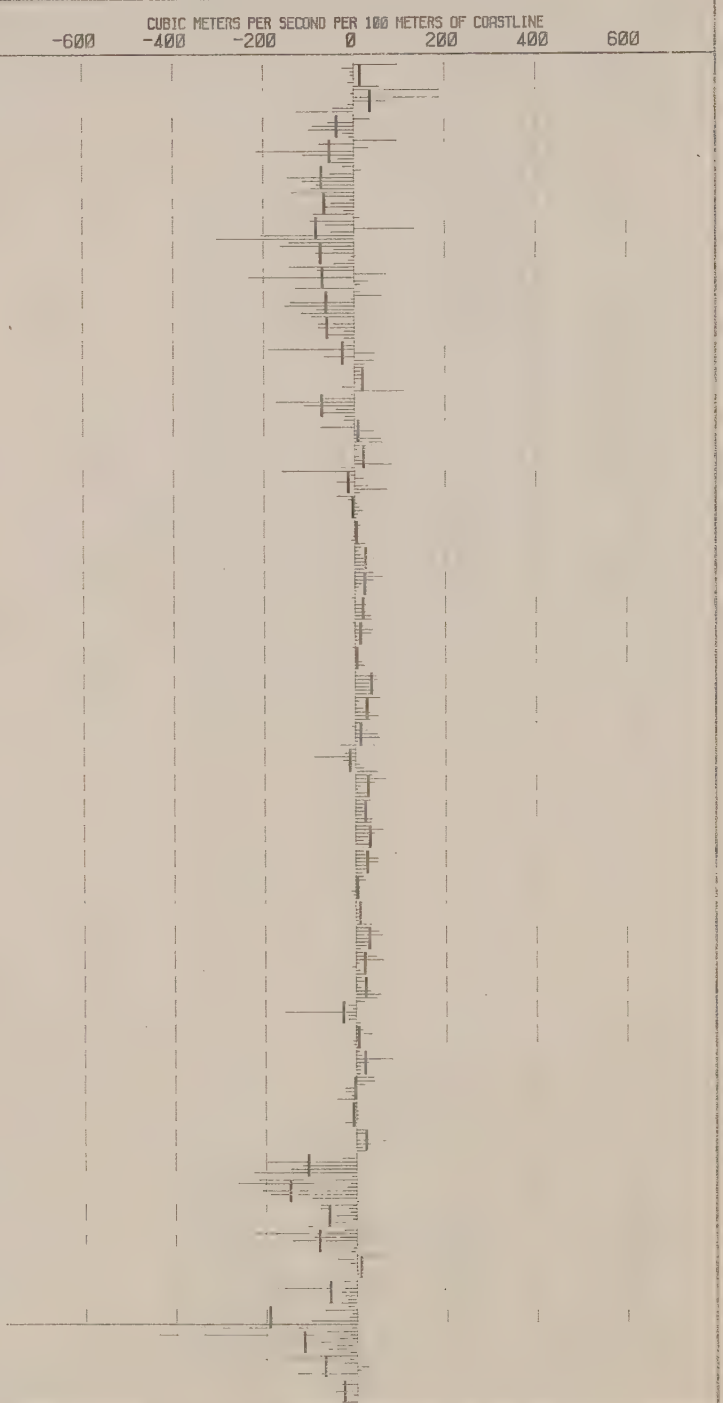
DURING 1971 AT 48N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	-61	-45	-7	5	37	70	53	7
10 JAN	13	-14	-45	-24	-390	-520	-197	-168
17 JAN	-91	-197	19	39	75	45	128	2
24 JAN	69	-87	-78	-61	-48	-13	22	-28
31 JAN	4	49	70	-87	29	-6	-25	5
7 FEB	-54	-124	-205	-37	-81	-43	-76	-89
14 FEB	-176	-50	-41	-23	-1	29	-56	-45
21 FEB	-81	-18	-115	107	214	-37	127	28
28 FEB	69	-179	-106	11	8	-111	-460	-110
7 MAR	-6	-158	-116	-199	-646	-101	-133	-194
14 MAR	-122	18	31	1	-3	21	50	-1
21 MAR	-22	-145	-77	-2	-17	8	-93	-50
28 MAR	-147	-51	49	-23	-81	-3	-8	-38
4 APR	-54	-69	-14	-148	-223	-42	-107	-94
11 APR	-10	-144	-91	51	25	-32	50	-22
18 APR	-25	-49	85	-73	-45	51	85	4
25 APR	47	54	78	16	-38	-25	3	19
2 MAY	39	86	83	69	33	74	87	67
9 MAY	17	1	-11	8	-18	-34	-173	-30
16 MAY	125	14	13	47	47	27	26	43
23 MAY	47	31	21	58	67	97	121	63
30 MAY	64	49	23	39	15	14	13	31
6 JUN	1	15	-2	-7	12	5	7	5
13 JUN	-23	9	26	14	-2	3	-19	1
20 JUN	-29	-4	9	-23	-286	-6	30	-37
27 JUN	46	30	15	14	30	39	18	29
4 JUL	43	19	20	4	0	-13	-12	9
11 JUL	1	16	28	46	71	74	32	38
18 JUL	51	38	66	84	99	103	51	70
25 JUL	14	10	22	15	2	6	9	11
1 AUG	13	13	3	15	15	16	40	17
8 AUG	14	21	52	82	82	24	-1	39
15 AUG	18	15	4	-7	-27	-89	-14	-14
22 AUG	9	-13	27	55	44	28	3	22
29 AUG	-0	-9	-29	-56	26	-43	-20	-19
5 SEP	19	14	-38	11	-11	-49	-11	-9
12 SEP	27	54	37	30	-13	-27	-5	15
19 SEP	47	1	-10	-11	4	32	19	12
26 SEP	11	-1	6	11	5	-14	-61	-6
3 OCT	-59	-30	-22	6	5	-18	-7	-18
10 OCT	4	7	-6	90	19	38	9	23
17 OCT	5	-108	-37	-70	-345	-46	8	-85
24 OCT	-33	36	100	38	-11	-36	3	15
31 OCT	-35	81	-132	8	47	-38	-131	-29
7 NOV	-162	-472	-294	-64	1	-139	-3	-162
14 NOV	26	2	18	-2	-17	-21	-68	-9
21 NOV	17	-42	-255	-97	-273	-115	-153	-131
28 NOV	-53	40	-44	-282	-50	-19	-157	-81
5 DEC	75	53	-169	-125	76	19	-164	-34
12 DEC	58	-23	95	13	-36	10	24	20
19 DEC	32	-27	-46	-69	-212	-0	-93	-59
26 DEC	-110	-51	-24	-28	-79	6	125	-23

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1972 AT 48N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	97	-24	-5	-5	2	-11	56	16
9 JAN	189	-5	189	72	-12	-46	-127	37
16 JAN	-3	34	-55	-89	-99	-25	-11	-35
23 JAN	93	-77	31	-213	-112	-34	-49	-51
30 JAN	-23	17	-52	-146	-115	-82	-94	-71
6 FEB	-139	-68	-9	-51	-67	-21	-89	-63
13 FEB	13	-96	-62	132	-50	-206	-309	-82
20 FEB	-143	-163	-45	-85	-6	-12	-45	-71
27 FEB	-143	-80	71	-233	30	13	-129	-67
5 MAR	12	61	-6	-140	-152	-82	-117	-61
12 MAR	-123	-30	-79	-79	-23	-57	-23	-59
19 MAR	-1	-27	-191	45	-65	43	24	-25
26 MAR	13	13	14	18	3	-25	111	21
2 APR	-6	-64	-172	-110	-39	-73	-20	-69
9 APR	-23	-2	-73	41	7	57	62	10
16 APR	46	30	14	12	24	82	-61	21
23 APR	-160	-7	19	-38	28	71	9	-11
30 APR	-38	-14	3	11	18	6	2	-2
7 MAY	6	12	2	1	-2	-6	24	5
14 MAY	15	5	42	48	23	28	21	26
21 MAY	40	61	40	14	9	1	-1	23
28 MAY	-5	2	25	19	23	35	36	19
4 JUN	-3	19	39	34	4	8	-1	14
11 JUN	-4	2	-1	2	15	20	6	6
18 JUN	38	45	48	30	30	40	32	38
25 JUN	54	9	2	16	33	50	31	28
2 JUL	8	-6	25	47	51	5	-34	14
9 JUL	-7	-28	-90	-27	9	19	49	-11
16 JUL	36	65	43	10	3	29	25	30
23 JUL	31	17	14	17	12	36	34	23
30 JUL	34	59	43	26	15	29	28	34
6 AUG	16	21	49	48	27	23	14	28
13 AUG	16	20	6	7	-8	-5	1	6
20 AUG	2	-2	6	8	21	15	33	12
27 AUG	31	49	58	32	25	21	7	32
3 SEP	14	44	61	7	-8	8	23	21
10 SEP	11	16	3	10	32	54	47	25
17 SEP	18	-16	-7	-156	-19	-15	9	-26
24 SEP	5	14	35	2	-6	-3	3	7
1 OCT	6	20	79	27	7	10	9	23
8 OCT	37	41	17	-24	-25	-9	-42	-1
15 OCT	-8	-5	4	4	3	-24	2	-3
22 OCT	20	19	0	66	29	12	22	24
29 OCT	0	-30	-197	-119	-143	-226	-9	-103
5 NOV	-226	-263	-23	-207	-189	-98	4	-143
12 NOV	-81	-80	-14	-50	-9	-57	-109	-57
19 NOV	-28	-225	-94	-142	1	-55	-12	-79
26 NOV	66	-42	-14	1	1	67	9	13
3 DEC	-28	-19	-197	-35	-26	-21	-63	-55
10 DEC	-19	-69	-10	-16	-101	-775	-346	-191
17 DEC	-67	-438	-39	-80	-48	-64	-57	-113
24 DEC	-126	-239	-29	34	16	-131	3	-68
31 DEC	-31	-33	1	-49	-8	-23	-34	-25



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 48N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-102	-291	-286	-440	-299	-121	-69	-230
14 JAN	-265	-267	-123	-132	-94	-89	-274	-178
21 JAN	-69	-274	-321	6	22	-143	-431	-172
28 JAN	-258	-61	-58	-85	-97	2	23	-76
4 FEB	-2	-13	-90	-134	-43	-27	-3	-45
11 FEB	2	-9	-143	-81	-121	-74	19	-58
18 FEB	-24	-7	-23	-89	-66	-44	-59	-44
25 FEB	-185	-182	-40	-66	-7	-94	-85	-94
4 MAR	0	-58	-3	-16	4	-22	8	-12
11 MAR	31	61	42	-3	-79	30	-83	-0
18 MAR	-329	-41	-2	10	13	-5	18	-48
25 MAR	115	47	45	10	-37	-7	9	26
1 APR	30	-18	-8	10	91	9	-42	10
8 APR	-8	5	21	22	49	40	-7	17
15 APR	-11	0	50	19	46	39	23	24
22 APR	66	40	5	-2	57	91	34	42
29 APR	20	13	1	3	6	41	9	13
6 MAY	13	-65	-22	2	4	-16	-9	-13
13 MAY	-9	10	20	18	46	47	75	30
20 MAY	22	-5	-39	-191	9	16	1	-27
27 MAY	7	12	31	159	87	43	33	53
3 JUN	40	13	5	-7	-21	26	37	14
10 JUN	8	-86	-82	-18	3	-12	-1	-27
17 JUN	16	-19	3	-2	31	54	-22	9
24 JUN	-24	3	9	55	84	67	59	36
1 JUL	3	8	1	31	9	-2	-6	6
8 JUL	1	3	31	31	59	52	72	35
15 JUL	91	76	27	25	52	45	41	51
22 JUL	18	4	-9	8	37	29	32	17
29 JUL	46	51	52	54	61	53	54	53
5 AUG	38	28	27	38	64	49	32	39
12 AUG	34	58	39	32	39	16	16	34
19 AUG	16	21	32	16	6	6	20	17
26 AUG	32	6	8	27	33	22	-1	18
2 SEP	8	17	10	8	20	33	-2	13
9 SEP	20	16	52	22	3	-2	-13	14
16 SEP	-29	-57	-41	-68	-16	-17	1	-32
23 SEP	-13	27	-6	-22	-4	8	45	5
30 SEP	21	17	5	1	6	8	33	13
7 OCT	-18	-7	2	2	13	-25	6	-4
14 OCT	-8	-42	-27	-61	-21	-9	-9	-25
21 OCT	-72	-77	-26	-79	-16	-167	-99	-77
28 OCT	32	-12	32	58	18	-7	-43	11
4 NOV	-12	-71	-65	-12	-31	-71	-118	-54
11 NOV	-92	-21	-82	-69	-68	44	5	-40
18 NOV	15	-300	-22	35	-1	-2	-22	-42
25 NOV	67	-80	-119	-42	-97	-111	-26	-58
2 DEC	-173	11	-55	-243	-128	18	-57	-89
9 DEC	-149	-218	-213	-351	-158	-111	-476	-239
16 DEC	-1	4	-227	-447	-182	-56	-27	-134
23 DEC	-53	5	24	-48	-55	-15	23	-17

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

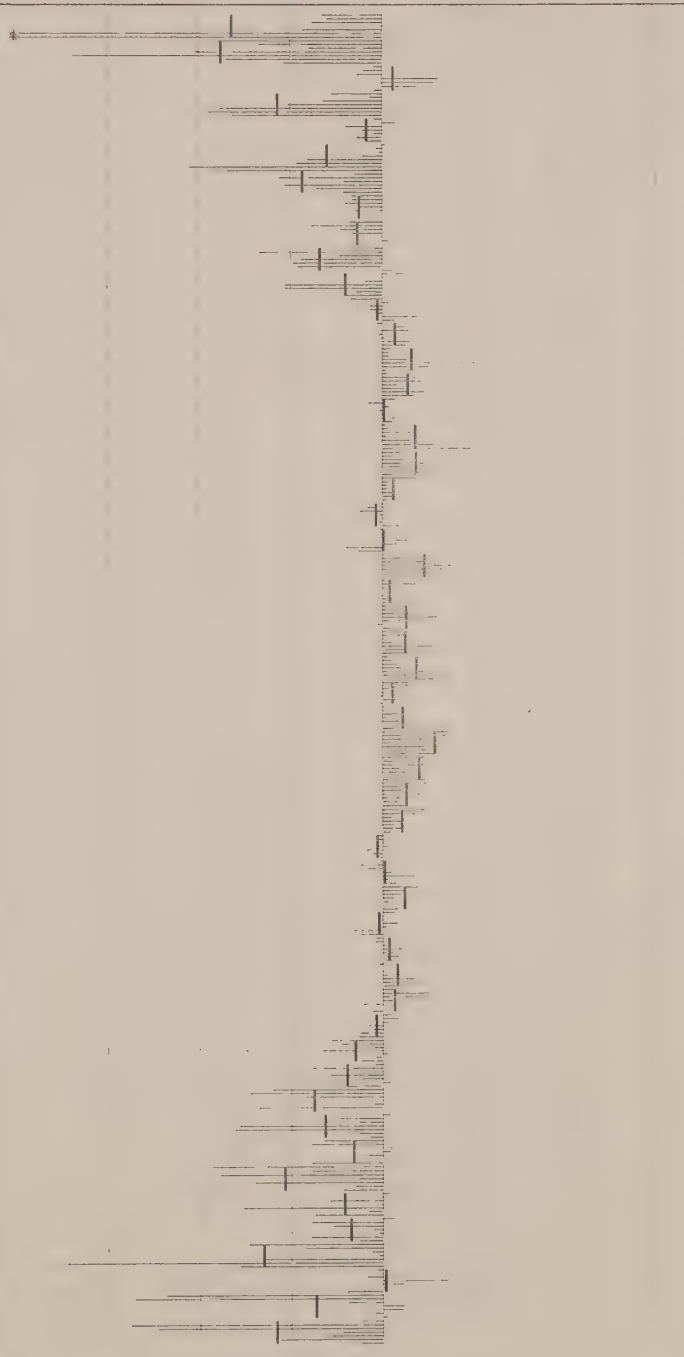
DURING 1967 AT 45N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	24	-111	-46	28	-0	-9	-99	-31
8 JAN	-77	-221	-131	-18	-140	-17	-48	-93
15 JAN	1	30	1	-186	-577	-173	-49	-136
22 JAN	-180	-117	-66	-140	-259	-338	-157	-187
29 JAN	-68	-2	-101	-75	-54	-60	2	-51
5 FEB	14	33	-1	-3	4	13	-1	8
12 FEB	-50	40	-49	-4	-18	5	73	-0
19 FEB	7	-26	-1	-0	-144	-48	-6	-31
26 FEB	-170	-168	-22	18	56	73	36	-25
5 MAR	39	90	77	78	2	4	-36	36
12 MAR	-33	-51	-416	-317	-234	-107	-13	-167
19 MAR	-145	-40	-127	-417	-101	-25	3	-122
26 MAR	3	-32	88	-7	14	49	28	21
2 APR	18	26	1	-3	15	55	6	17
9 APR	-8	23	76	-12	-16	-40	-7	2
16 APR	-74	11	5	-1	4	23	4	-4
23 APR	21	25	-24	-13	-7	2	6	1
30 APR	16	49	162	149	104	77	23	83
7 MAY	23	92	110	7	7	28	15	40
14 MAY	15	32	32	48	43	15	18	29
21 MAY	95	129	124	84	59	5	-9	69
28 MAY	5	12	59	109	63	-5	12	37
4 JUN	29	47	62	97	171	134	78	88
11 JUN	38	50	61	40	59	101	78	61
18 JUN	60	92	102	91	50	59	57	73
25 JUN	75	67	41	53	174	120	61	84
2 JUL	122	193	113	86	101	85	78	110
9 JUL	27	11	44	105	142	113	140	83
16 JUL	64	49	1	-2	39	95	80	47
23 JUL	58	110	95	81	37	21	19	60
30 JUL	55	56	42	77	60	89	86	66
6 AUG	105	110	56	25	43	53	16	58
13 AUG	37	92	46	69	43	85	70	63
20 AUG	39	26	34	134	101	72	21	61
27 AUG	17	-3	14	19	0	-24	22	6
3 SEP	-5	1	1	22	30	17	-2	9
10 SEP	-18	-17	3	10	-14	-17	-12	-9
17 SEP	-24	47	60	47	91	128	68	60
24 SEP	42	45	17	18	-1	-16	-72	5
1 OCT	-166	-57	-176	-112	-69	-204	-107	-127
8 OCT	-61	-29	-69	-25	-29	-25	32	-30
15 OCT	-10	1	-79	-1	3	-179	-71	-47
22 OCT	-133	14	-143	-14	-145	-182	12	-84
29 OCT	-273	-94	-7	30	-4	-41	-170	-80
5 NOV	-130	-56	-41	-143	-128	-90	-181	-110
12 NOV	-218	-155	-60	-36	10	-21	34	-64
19 NOV	114	34	21	76	16	103	20	55
26 NOV	-69	-44	-95	-56	-52	-624	-301	-177
3 DEC	-190	-191	3	-617	-99	-249	-205	-213
10 DEC	-43	104	25	-6	-12	-2	143	30
17 DEC	7	52	1	-45	-662	-466	-143	-179
24 DEC	-47	9	26	30	24	35	12	13
31 DEC	44	105	11	-0	13	19	-45	21

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 45N, 125W

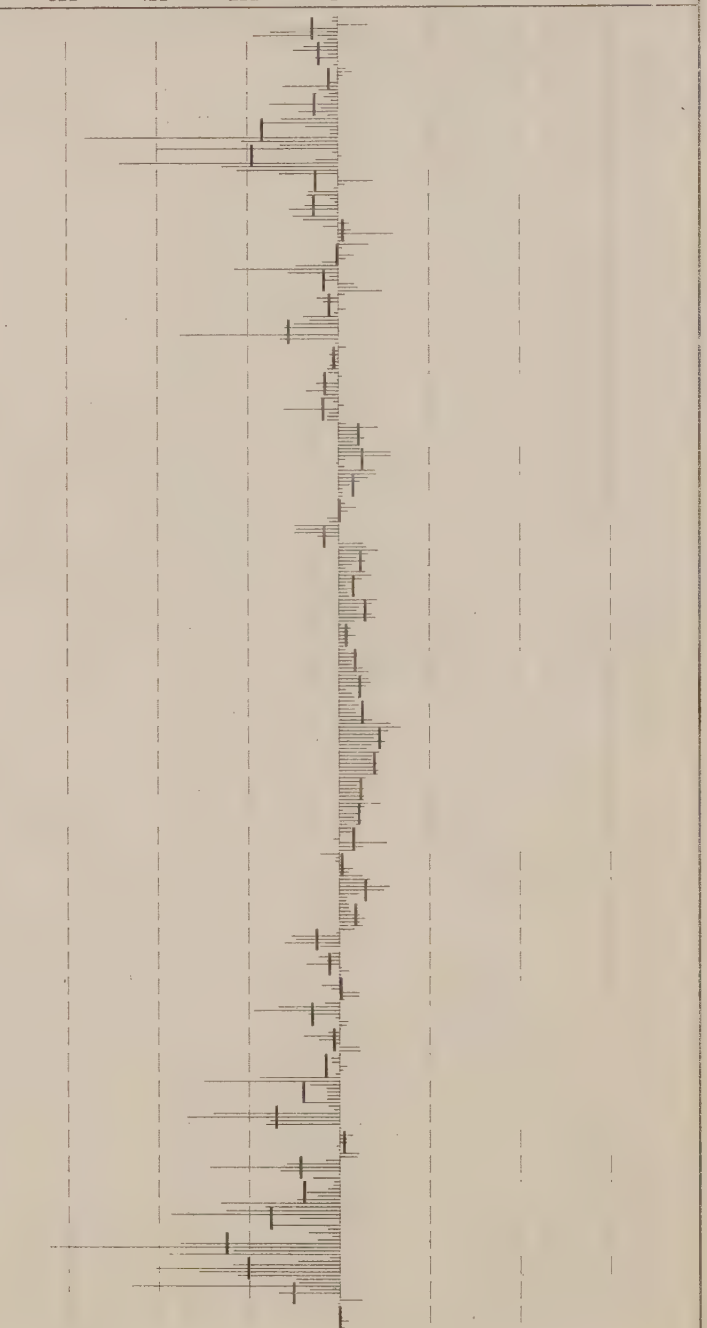
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-130	-120	-153	2	-172	-860	-855	-327
14 JAN	-392	-268	-158	-407	-676	-342	-214	-351
21 JAN	-18	-40	-54	122	114	76	-16	26
28 JAN	-110	-26	-128	-203	-354	-379	-385	-226
4 FEB	-15	28	-77	-42	-25	-59	-34	-31
11 FEB	6	-11	-5	-43	-163	-186	-419	-117
18 FEB	-372	-60	-223	-85	-213	-171	-84	-173
25 FEB	-66	-65	-103	-48	-60	1	-1	-49
3 MAR	-70	-155	-91	-66	1	15	2	-52
10 MAR	-66	-267	-93	-175	-193	-184	36	-135
17 MAR	48	3	-35	-213	-211	-56	-81	-78
24 MAR	-68	15	-62	-27	-14	79	27	-7
31 MAR	-11	51	58	-7	4	63	52	30
7 APR	21	16	14	57	249	101	8	66
14 APR	11	72	84	32	50	91	69	59
21 APR	20	-47	14	-6	2	25	21	5
28 APR	8	31	80	8	61	113	204	73
5 MAY	58	26	74	09	70	85	129	76
12 MAY	73	12	9	28	20	28	12	26
19 MAY	-34	-31	-53	-6	5	-5	30	-12
26 MAY	-5	10	79	54	30	-80	-61	4
2 JUN	35	69	119	149	130	88	52	95
9 JUN	7	73	15	-25	-11	10	54	18
16 JUN	63	42	82	118	63	-9	18	54
23 JUN	41	47	2	20	110	94	54	53
30 JUN	66	22	32	42	105	146	112	75
7 JUL	56	55	44	-3	-4	26	-5	24
14 JUL	0	22	34	44	34	58	131	46
21 JUL	145	137	80	113	117	97	114	116
28 JUL	92	148	90	37	55	59	94	82
4 AUG	93	43	40	80	36	32	48	53
11 AUG	89	71	19	46	27	40	17	44
18 AUG	-6	-9	2	11	-37	-23	-5	-10
25 AUG	-8	-55	-32	20	72	11	28	5
1 SEP	75	95	66	24	9	50	33	50
8 SEP	28	0	-2	32	6	-66	-46	-7
15 SEP	-15	-17	19	42	23	35	18	15
22 SEP	-8	-0	1	10	67	102	60	34
29 SEP	24	99	107	20	-42	14	-23	29
6 OCT	41	35	13	-54	-21	-48	-53	-12
13 OCT	-111	-90	-28	-133	22	-15	-45	-57
20 OCT	-17	-153	-50	-129	-63	15	-130	-76
27 OCT	-250	-303	-169	1	-10	-291	-5	-148
3 NOV	17	-92	-49	-323	-325	-70	-27	-124
10 NOV	-127	-156	20	17	-46	10	-156	-63
17 NOV	-378	-154	-358	-153	-290	-60	-87	-211
24 NOV	50	-7	-129	-3	-303	-32	-149	-82
1 DEC	29	-156	-100	-20	-8	-157	-62	-69
8 DEC	-292	-175	-24	-9	-256	-729	-328	-259
15 DEC	-17	-11	-35	141	46	9	-78	8
22 DEC	-474	-543	-75	47	42	-19	9	-145
29 DEC	-46	-550	-491	-88	-131	-224	-74	-229



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 45N, 125W

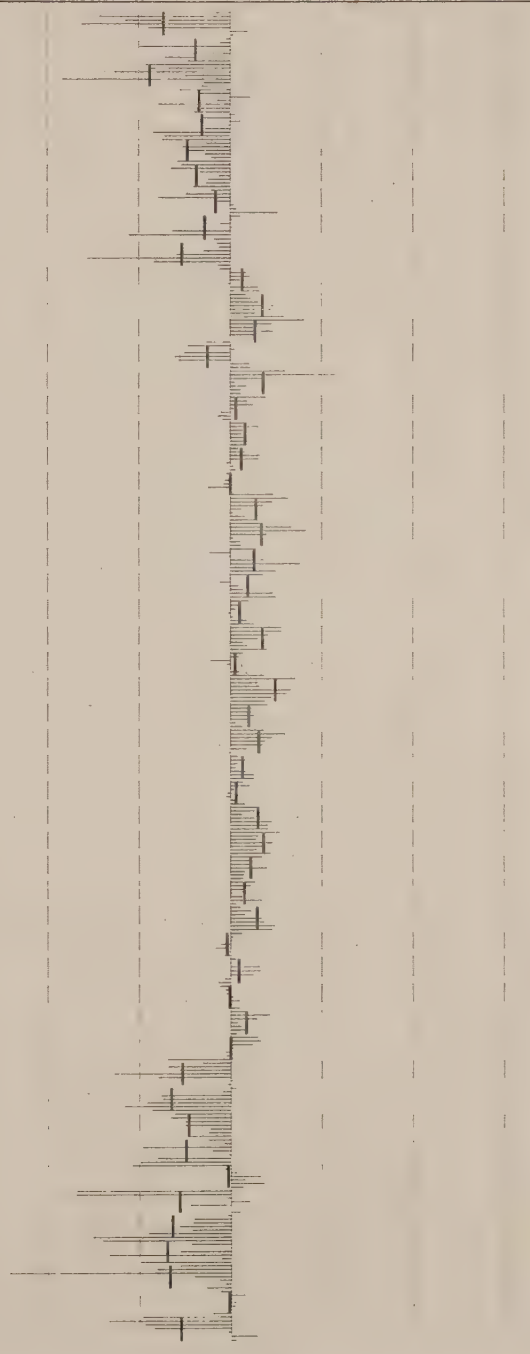
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-10	-12	65	-61	-148	-186	-23	-53
12 JAN	-30	-74	-85	-20	-49	2	-7	-39
19 JAN	17	31	10	3	-22	-119	-39	-17
26 JAN	-18	-29	-13	-150	-37	-86	-22	-51
2 FEB	-123	-166	-70	-15	-16	-558	-212	-166
9 FEB	-129	-397	-13	8	-48	-482	-255	-188
16 FEB	-222	-129	3	76	13	-8	-64	-47
23 FEB	-69	-16	-8	-72	-106	-1	-98	-53
2 MAR	-77	23	-32	29	120	8	13	12
9 MAR	67	7	-1	33	16	-33	-91	-0
16 MAR	-228	-110	-18	-27	34	41	97	-30
23 MAR	15	-46	-32	-1	16	-8	-77	-19
30 MAR	-62	-96	-119	1	-347	-128	-6	-108
6 APR	16	-8	-18	-1	-7	-18	-23	-9
13 APR	-22	8	-1	-48	-95	-70	-31	-28
20 APR	-39	-10	12	-120	-20	-24	-23	-32
27 APR	16	86	43	42	56	32	44	45
4 MAY	47	114	114	14	-4	12	81	54
11 MAY	81	64	47	23	8	7	8	34
18 MAY	-1	13	38	19	4	-24	-19	4
25 MAY	-97	-92	-95	-45	1	57	61	-30
1 JUN	87	65	37	58	28	14	59	50
8 JUN	72	49	32	14	29	17	22	34
15 JUN	83	73	44	38	71	80	33	60
22 JUN	4	25	20	36	17	20	10	19
29 JUN	14	38	38	28	27	51	67	38
6 JUL	65	63	69	60	15	28	33	48
13 JUL	34	45	33	36	49	71	112	54
20 JUL	135	108	92	77	99	71	61	92
27 JUL	87	73	69	82	80	86	84	80
3 AUG	59	46	38	56	43	54	54	50
10 AUG	95	56	7	41	32	51	48	47
17 AUG	26	35	1	-11	105	53	33	34
24 AUG	-41	-5	-9	8	27	20	51	7
31 AUG	69	63	109	99	46	17	15	60
7 SEP	21	21	24	44	56	45	53	38
14 SEP	31	-6	-107	-94	-119	-42	1	-48
21 SEP	-17	-46	-26	-73	4	20	2	-19
28 SEP	3	6	-39	-18	42	41	10	7
5 OCT	-32	-134	-188	-69	-9	19	14	-57
12 OCT	2	-24	-78	-43	-10	42	44	-9
19 OCT	2	-18	-15	15	6	-8	-176	-28
26 OCT	-298	-64	-28	-29	-26	-28	-76	-78
2 NOV	-24	-12	-279	-335	-152	-162	2	-137
9 NOV	-1	27	13	15	-6	-2	42	13
16 NOV	38	-31	-117	-286	-130	-2	-58	-84
23 NOV	-13	-15	-26	-72	-48	-95	-263	-76
30 NOV	-163	-250	-372	-88	-0	-149	-25	-150
7 DEC	-67	-15	-47	-353	-641	-235	-379	-248
14 DEC	-22	-92	-237	-408	-312	-227	-96	-199
21 DEC	-89	-460	-67	-134	2	48	-4	-101
28 DEC	-3	-2	-4	4	18	0	8	3



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 45N, 125W

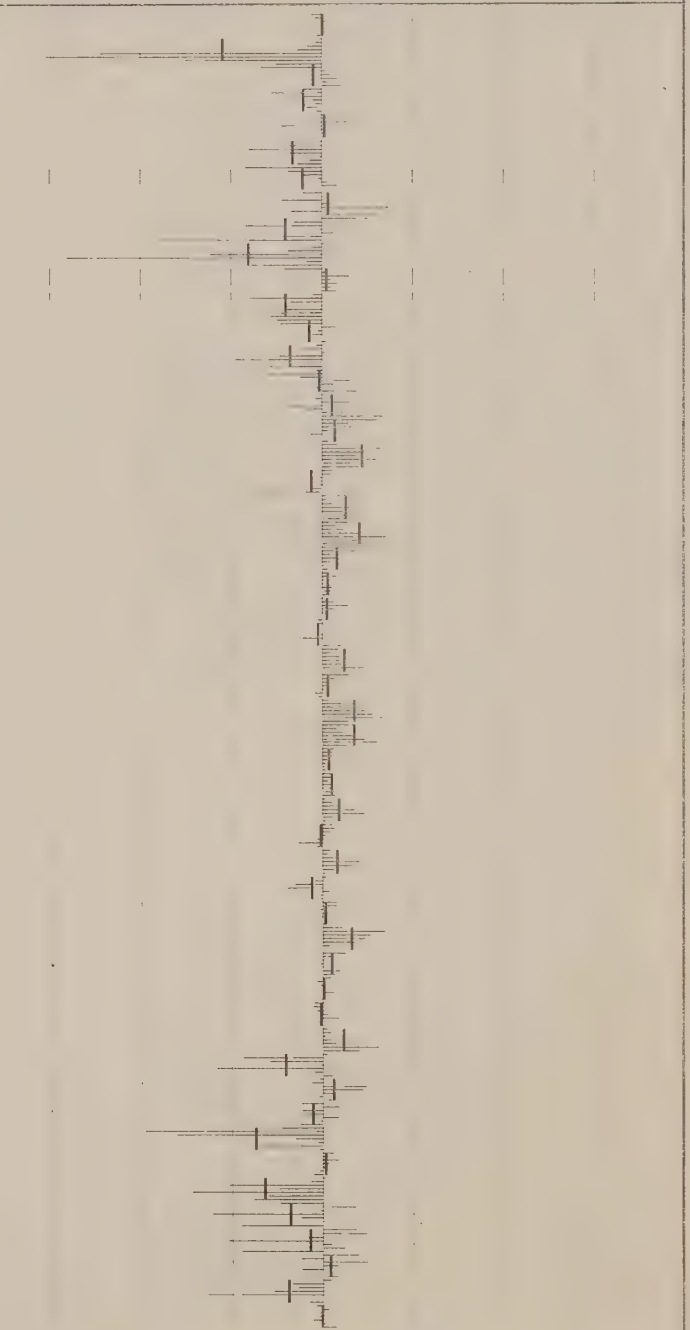
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	-32	-295	-229	-324	-179	38	6	-145
11 JAN	-8	-22	-198	2	-40	-143	-109	-74
18 JAN	-184	-172	-279	-98	-367	-57	-62	-174
25 JAN	-110	-68	45	-29	-157	-72	-77	-67
1 FEB	12	-65	22	-14	-54	-169	-154	-60
8 FEB	-148	-86	-105	-92	-54	-40	-113	-91
15 FEB	-106	-128	-63	-25	-47	-53	-81	-72
22 FEB	-40	-95	-156	-34	5	12	102	-29
1 MAR	19	3	-20	1	-127	-220	-34	-54
8 MAR	-29	-23	-59	-116	-312	-167	-27	-105
15 MAR	-22	33	41	20	-5	59	64	27
22 MAR	33	53	59	94	88	56	118	71
29 MAR	160	90	48	92	49	-1	-53	55
5 APR	-93	7	-101	-121	-113	39	43	-48
12 APR	120	241	74	9	33	22	22	75
19 APR	76	37	47	6	-21	-26	-16	15
26 APR	28	61	26	21	34	36	30	34
3 MAY	17	29	63	59	-9	5	11	25
10 MAY	-8	-2	-11	-14	-49	-0	92	1
17 MAY	126	90	69	24	3	31	56	57
24 MAY	65	133	163	78	5	20	22	69
31 MAY	55	-44	-2	74	152	53	97	55
7 JUN	70	-0	-23	16	26	93	99	40
14 JUN	38	17	9	-3	3	33	50	21
21 JUN	109	111	81	58	26	36	79	71
28 JUN	26	15	-41	-9	1	18	71	12
5 JUL	140	59	63	132	138	67	75	99
12 JUL	80	44	44	50	38	9	24	41
19 JUL	72	118	91	75	68	34	-3	65
26 JUL	14	29	14	11	35	51	50	29
2 AUG	25	41	5	-6	-8	12	31	14
9 AUG	58	52	23	53	89	79	80	62
16 AUG	106	59	54	69	75	56	86	75
23 AUG	69	42	47	77	31	28	25	46
30 AUG	52	42	28	3	24	69	9	32
6 SEP	20	45	31	65	72	96	90	60
13 SEP	24	4	1	-19	-32	-6	-11	-6
20 SEP	11	1	62	64	48	-13	-27	21
27 SEP	-22	-10	-8	4	17	2	17	0
4 OCT	30	84	57	14	23	31	13	36
11 OCT	57	64	46	5	-13	-7	-137	2
18 OCT	-60	-136	-110	-254	-164	3	-12	-105
25 OCT	13	-27	-151	-147	-184	-233	-171	-129
1 NOV	-123	-130	-99	-97	-44	-48	-93	-91
8 NOV	-59	-21	-192	-39	-4	-160	-198	-96
15 NOV	-217	-11	12	63	32	73	26	-3
22 NOV	-377	-337	-18	40	-92	-1	20	-109
29 NOV	-6	-80	-82	-112	-100	-181	-321	-126
6 DEC	-280	-85	1	-110	-267	-19	-199	-137
13 DEC	-111	-162	-485	-81	-24	-13	-53	-133
20 DEC	-21	31	-2	9	8	-1	-40	-2
27 DEC	-191	-271	-188	-167	-7	57	11	-108



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 45N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	-23	-18	10	31	25	10	-9	4
10 JAN	-14	-14	-30	-51	-486	-617	-300	-216
17 JAN	-99	-132	11	20	36	14	43	-15
24 JAN	-41	-109	-43	-18	-15	-33	-10	-38
31 JAN	1	66	65	-88	6	4	6	9
7 FEB	-5	-71	-160	-68	-53	-31	-53	-63
14 FEB	-167	-72	-42	-6	8	31	-27	-39
21 FEB	-40	1	-80	34	145	-65	118	15
28 FEB	100	-64	-169	-3	27	-92	-352	-79
7 MAR	4	-51	-75	-246	-561	-32	-153	-159
14 MAR	-81	13	59	17	33	18	31	13
21 MAR	-18	-157	-67	2	-77	-119	-111	-78
28 MAR	-99	-91	30	-8	-28	7	7	-26
4 APR	-13	-38	7	-95	-192	-37	-114	-69
11 APR	-12	-123	-48	60	25	-10	76	-4
18 APR	12	-13	84	-67	-39	51	135	23
25 APR	121	58	63	12	-23	-29	11	31
2 MAY	66	128	86	75	118	72	81	89
9 MAY	25	19	-5	-3	-18	-40	-138	-23
16 MAY	64	9	20	61	61	81	76	53
23 MAY	55	30	49	83	142	115	114	84
30 MAY	87	74	15	28	17	3	11	34
6 JUN	14	29	3	-1	21	18	11	13
13 JUN	-9	23	57	30	-3	-1	-10	13
20 JUN	-11	1	8	-4	-99	2	41	-9
27 JUN	34	20	36	53	72	92	42	50
4 JUL	58	25	32	15	-2	-17	-7	15
11 JUL	13	40	63	96	110	132	56	73
18 JUL	65	30	45	69	92	121	80	72
25 JUL	29	20	19	29	5	4	8	16
1 AUG	20	26	10	17	20	26	34	22
8 AUG	6	20	43	75	93	24	6	38
15 AUG	20	27	18	5	-13	-54	-12	-1
22 AUG	16	11	46	81	63	23	5	35
29 AUG	7	-19	-60	-77	14	-5	-8	-21
5 SEP	33	30	-10	19	-3	-17	5	8
12 SEP	42	137	104	92	68	14	0	65
19 SEP	50	39	3	-4	-1	35	30	22
26 SEP	15	-13	-5	26	26	1	-22	4
3 OCT	-18	-20	-11	12	33	-8	-3	-2
10 OCT	8	17	5	76	28	122	80	48
17 OCT	10	-176	-116	-34	-235	-31	21	-80
24 OCT	-5	-24	96	87	24	-7	18	27
31 OCT	-45	39	-45	-44	35	-3	-77	-20
7 NOV	-91	-392	-322	-61	-10	-140	-5	-146
14 NOV	26	10	34	12	5	-6	-21	8
21 NOV	4	-25	-205	-95	-287	-120	-153	-126
28 NOV	-93	71	-6	-243	-48	2	-179	-71
5 DEC	71	95	-32	-209	17	49	-178	-27
12 DEC	77	-49	97	32	-47	-18	34	18
19 DEC	15	-69	-54	-108	-270	-1	-31	-74
26 DEC	-13	13	-9	-7	-21	4	27	-1



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

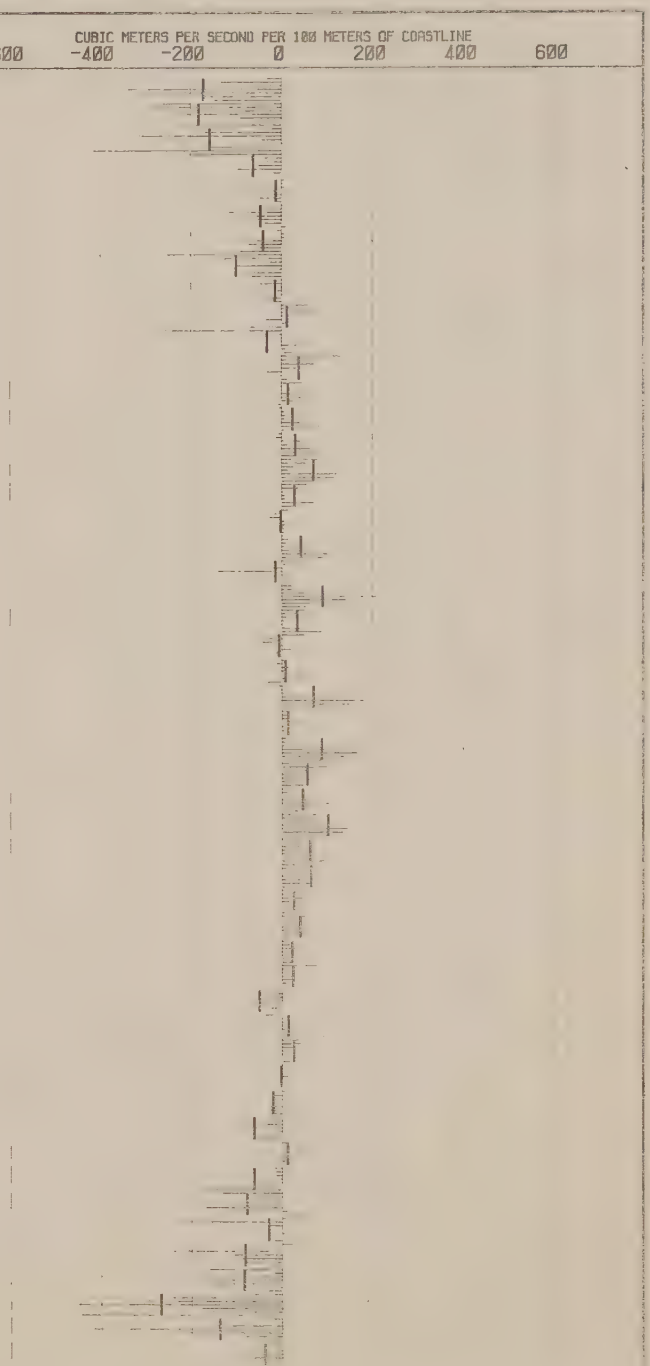
DURING 1972 AT 45N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	143	19	-10	-12	-2	-27	-53	8
9 JAN	55	-34	35	70	7	-8	-91	5
16 JAN	-59	-10	-122	-242	-335	-90	-53	-130
23 JAN	34	-83	77	-53	-16	-20	-26	-12
30 JAN	-12	24	-12	-119	-143	-98	-68	-61
6 FEB	-124	-61	-4	-16	-40	-25	-117	-55
13 FEB	10	-76	-113	0	-64	-171	-287	-100
20 FEB	-124	-111	-85	-76	-29	-21	-138	-83
27 FEB	-346	-236	-7	-256	9	6	-117	-135
5 MAR	-123	43	-7	-169	-152	-127	-159	-99
12 MAR	-129	-20	-99	-23	-14	-32	-22	-40
19 MAR	-3	-17	-131	41	-46	30	32	-13
26 MAR	23	28	27	22	3	-31	46	17
2 APR	0	-74	-198	-170	-60	-61	-38	-89
9 APR	-18	2	-55	42	19	27	93	16
16 APR	66	54	59	24	19	52	-33	34
23 APR	-148	-23	18	-2	46	40	16	-7
30 APR	1	12	38	52	59	34	22	31
7 MAY	2	0	8	8	4	12	33	10
14 MAY	14	-1	71	57	69	92	18	46
21 MAY	-3	55	72	54	46	7	3	33
28 MAY	-3	10	45	49	73	76	34	41
4 JUN	9	52	71	55	-2	-6	-45	19
11 JUN	-10	7	6	20	41	35	38	20
18 JUN	80	90	74	73	89	47	34	70
25 JUN	53	26	16	43	108	165	113	75
2 JUL	42	11	39	68	67	2	-20	30
9 JUL	-2	-9	-29	-8	29	86	134	29
16 JUL	71	61	94	28	10	6	19	41
23 JUL	56	39	36	48	42	87	97	58
30 JUL	60	73	90	82	53	55	50	66
6 AUG	30	28	42	60	56	57	27	43
13 AUG	29	45	4	6	-7	-2	1	11
20 AUG	-4	-4	20	35	42	51	83	32
27 AUG	61	76	70	104	66	57	13	64
3 SEP	10	35	53	12	3	7	25	21
10 SEP	46	38	8	20	45	78	53	41
17 SEP	38	-1	-21	-148	-31	-26	8	-26
24 SEP	6	16	60	32	8	11	14	21
1 OCT	30	49	208	115	58	61	27	78
8 OCT	22	32	31	10	0	4	0	14
15 OCT	-3	-1	9	26	31	1	10	10
22 OCT	44	84	33	61	33	14	53	46
29 OCT	10	-7	-103	-118	-136	-187	-16	-78
5 NOV	-251	-252	-28	-169	-159	-58	26	-127
12 NOV	-105	-120	-7	-56	0	-38	-103	-61
19 NOV	-12	-173	-70	-72	-10	-28	-30	-56
26 NOV	49	-10	1	15	-3	-6	19	9
3 DEC	34	36	-47	28	28	-5	-44	4
10 DEC	-19	-53	-3	-11	-93	-728	-415	-189
17 DEC	-118	-472	-74	-152	-217	-100	-103	-177
24 DEC	-159	-323	-89	19	22	-52	3	-83
31 DEC	1	-21	18	19	3	5	1	4

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 45N, 125W

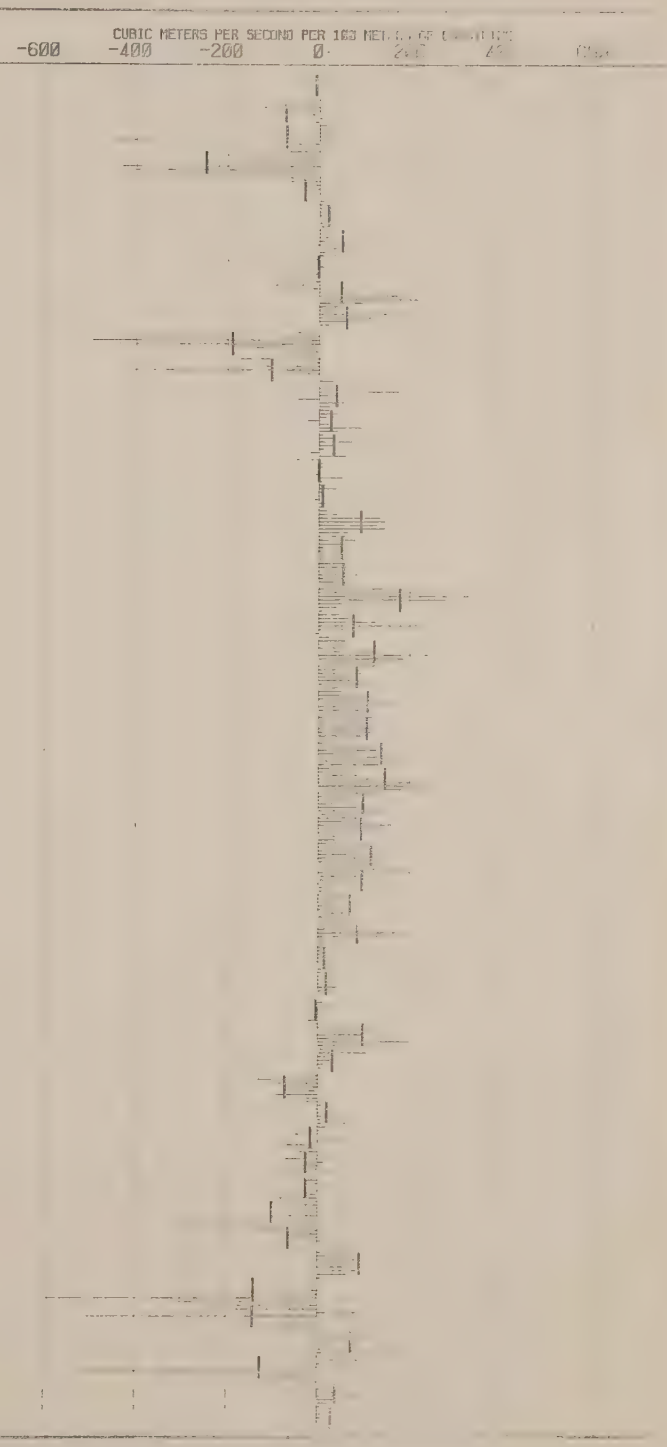
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-80	-131	-58	-338	-305	-174	-147	-169
14 JAN	-260	-297	-81	-257	-90	-52	-228	-181
21 JAN	-21	-168	-314	-43	27	-160	-414	-156
28 JAN	-202	-35	-39	-49	-96	-17	15	-60
4 FEB	7	1	8	-20	-16	-46	-10	-11
11 FEB	1	-29	-134	-54	-75	-36	18	-44
18 FEB	-9	10	5	-57	-72	-50	-91	-38
25 FEB	-251	-131	-25	-99	-43	-76	-63	-98
4 MAR	1	-59	1	-7	16	-25	-9	-12
11 MAR	61	61	75	2	-35	12	-71	15
18 MAR	-276	-14	-1	19	33	8	23	-30
25 MAR	131	70	70	31	-32	-1	12	40
1 APR	45	-1	1	12	54	25	-22	16
8 APR	-3	5	25	27	40	85	3	26
15 APR	-6	-13	40	22	73	80	31	32
22 APR	79	51	27	14	119	119	94	72
29 APR	55	36	3	7	6	71	32	30
6 MAY	15	-26	-26	6	25	5	4	0
13 MAY	1	15	18	19	65	100	93	44
20 MAY	42	11	-18	-141	8	8	0	-13
27 MAY	22	57	71	240	141	64	52	92
3 JUN	68	37	10	4	-3	47	86	36
10 JUN	51	-42	-43	5	21	-19	-7	-4
17 JUN	7	-10	15	3	45	44	-29	11
24 JUN	-25	-2	23	105	179	148	81	73
1 JUL	15	16	10	42	30	3	-3	16
8 JUL	8	17	63	129	165	135	109	90
15 JUL	98	100	54	33	30	50	46	59
22 JUL	28	14	-0	61	109	75	51	47
29 JUL	76	73	87	110	146	135	99	104
5 AUG	61	56	37	46	71	78	93	63
12 AUG	67	74	84	80	43	64	57	67
19 AUG	41	48	45	13	3	3	37	27
26 AUG	54	32	33	62	44	44	27	42
2 SEP	20	53	29	-2	11	35	23	24
9 SEP	79	18	24	22	25	8	-0	25
16 SEP	-26	-40	-38	-128	-72	-25	-7	-48
23 SEP	-95	18	5	-0	7	20	97	16
30 SEP	60	41	25	28	27	4	17	29
7 OCT	-10	1	15	12	16	-25	-7	0
14 OCT	11	-18	-17	-20	-31	-26	-23	-18
21 OCT	-56	-70	-49	-102	-8	-69	-63	-59
28 OCT	10	0	9	63	32	6	-24	14
4 NOV	-17	-14	-30	-4	-49	-131	-174	-60
11 NOV	-133	-66	-94	-130	-169	10	55	-75
18 NOV	47	-228	-28	22	12	-2	-22	-29
25 NOV	56	-70	-242	-106	-90	-83	-33	-81
2 DEC	-160	-22	-47	-152	-162	-6	-30	-83
9 DEC	-97	-243	-295	-449	-178	-154	-444	-266
16 DEC	-21	-2	-155	-429	-207	-83	-56	-136
23 DEC	-37	-29	-3	-80	-77	-77	50	-36



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 42N, 125W

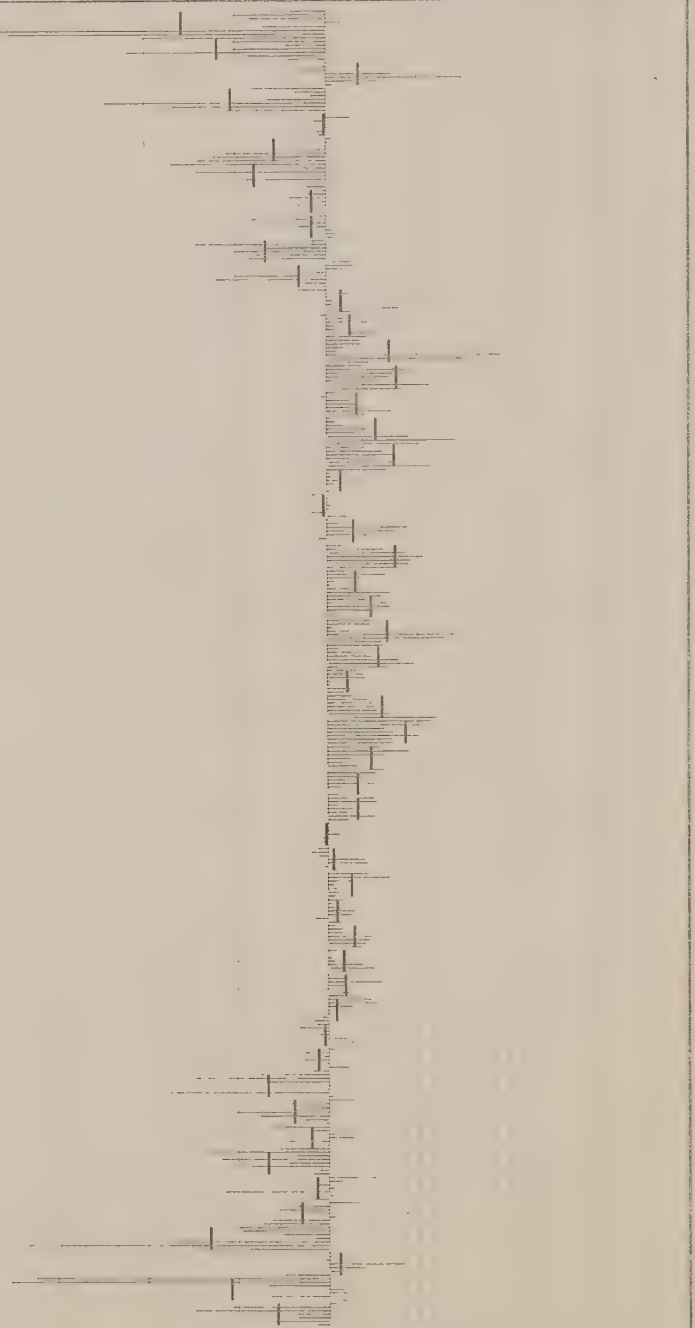
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	35	-20	-51	0	20	2	-30	-6
8 JAN	-84	-278	-123	2	-22	3	-9	-73
15 JAN	29	78	24	-00	-452	-09	20	-70
22 JAN	-110	-202	-134	-179	-429	-425	-241	-246
29 JAN	-120	-63	-9	-23	-0	-3	11	-29
5 FEB	25	56	9	4	9	38	16	23
12 FEB	3	107	23	15	-5	38	181	52
19 FEB	69	-16	-0	9	-77	-8	26	0
26 FEB	-84	-97	-15	40	171	217	122	51
5 MAR	42	79	146	112	60	20	-32	61
12 MAR	-51	-69	-521	-462	-140	-72	4	-187
19 MAR	-180	-15	-117	-407	-26	5	32	-101
26 MAR	22	18	175	39	-45	52	23	41
2 APR	22	39	15	-23	17	93	38	29
9 APR	6	29	126	28	8	-18	59	34
16 APR	-50	7	7	-1	-6	50	5	2
23 APR	11	38	4	1	-8	18	10	10
30 APR	16	39	133	143	128	143	61	95
7 MAY	55	78	109	9	5	48	63	52
14 MAY	53	67	40	85	69	34	49	57
21 MAY	142	278	327	285	154	64	12	180
28 MAY	48	75	135	216	59	-9	22	78
4 JUN	58	45	61	127	240	184	150	124
11 JUN	125	59	95	67	69	113	77	86
18 JUN	54	73	126	102	133	105	96	110
25 JUN	117	122	128	111	171	92	21	109
2 JUL	75	143	126	100	200	161	176	140
9 JUL	82	37	87	128	250	200	246	147
16 JUL	124	105	59	33	85	172	119	100
23 JUL	83	114	159	153	72	52	36	96
30 JUL	115	117	81	120	102	134	150	118
6 AUG	195	206	84	42	79	52	26	98
13 AUG	61	126	44	76	42	70	80	72
20 AUG	75	70	53	197	154	58	11	88
27 AUG	22	4	10	18	-4	2	62	16
3 SEP	9	7	5	40	43	31	4	20
10 SEP	-1	10	27	-1	-19	-6	-22	-2
17 SEP	-15	97	125	101	69	202	104	99
24 SEP	61	107	15	26	13	16	-6	33
1 OCT	-35	-129	-116	-60	-17	-33	-43	-70
8 OCT	-23	8	-3	3	9	61	97	22
15 OCT	19	6	-48	19	53	-65	-87	-15
22 OCT	-39	39	-85	11	-32	-102	38	-24
29 OCT	-73	-27	-5	75	6	-27	-115	-24
5 NOV	-63	-29	-91	-49	-67	-83	-290	-97
12 NOV	-279	-142	-53	-42	12	-12	83	-62
19 NOV	212	50	81	80	79	89	64	94
26 NOV	7	-21	-26	-11	-3	-595	-315	-138
3 DEC	-173	-247	99	-505	15	-60	-93	-140
10 DEC	-49	150	94	54	29	24	225	75
17 DEC	-29	119	5	-26	-510	-347	-72	-124
24 DEC	-16	21	53	69	95	43	24	41
31 DEC	50	120	49	7	1	28	-27	32



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 42N, 125W

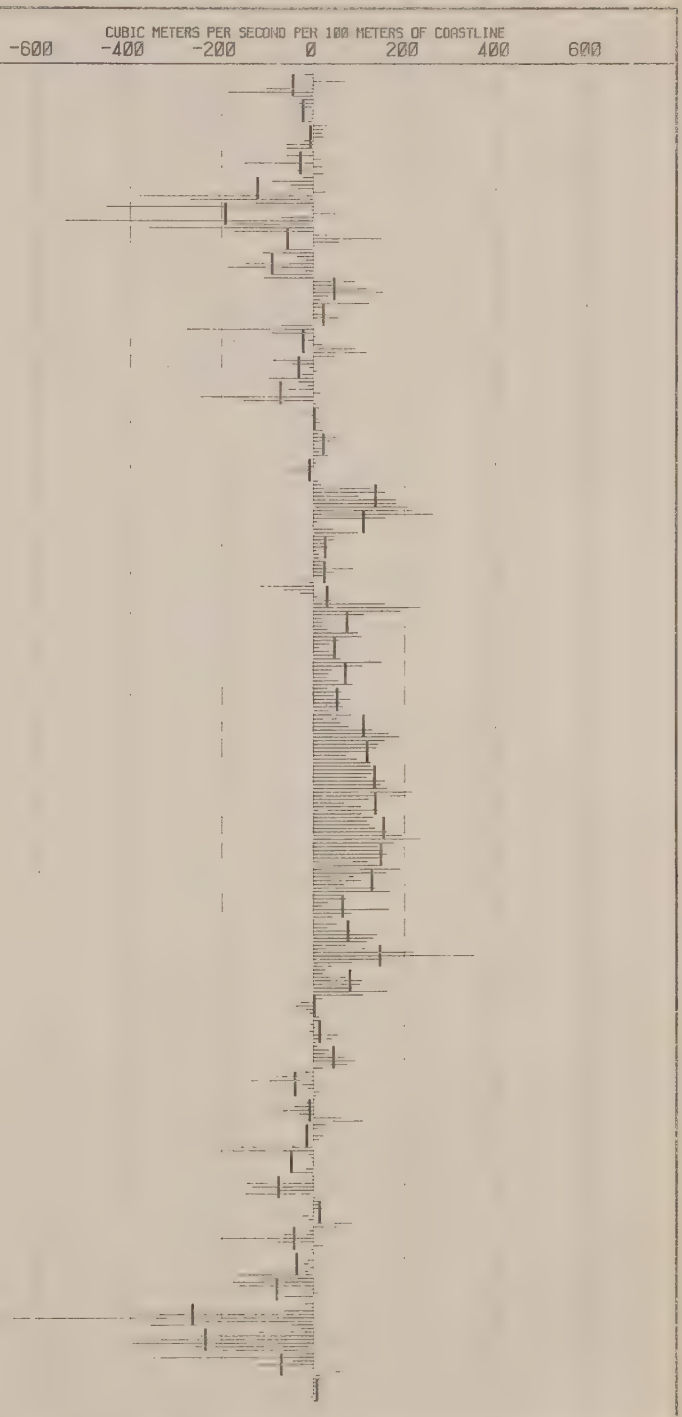
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-105	-214	-172	43	-139	-856	-773	-317
14 JAN	-414	-208	-85	-206	-437	-229	-79	-237
21 JAN	0	-5	-54	146	300	114	14	74
28 JAN	-162	-67	-31	-128	-488	-364	-215	-208
4 FEB	-6	52	-26	2	5	-18	-17	-1
11 FEB	13	5	-1	-49	-217	-248	-283	-111
18 FEB	-342	-100	-298	-80	-173	-58	-42	-156
25 FEB	-7	-38	-81	-34	-69	7	7	-31
3 MAR	-33	-172	-30	-58	17	51	18	-29
10 MAR	-32	-289	-132	-201	-152	-102	59	-133
17 MAR	77	35	-19	-200	-243	-45	-6	-57
24 MAR	-59	49	3	11	10	158	66	34
31 MAR	-12	59	93	16	20	109	89	53
7 APR	74	76	37	24	381	301	92	141
14 APR	78	193	172	137	116	226	167	156
21 APR	79	-10	51	64	70	143	83	69
28 APR	10	18	92	88	97	179	286	110
5 MAY	204	81	122	150	109	146	231	149
12 MAY	130	9	7	29	16	29	4	32
19 MAY	-32	-15	-8	9	10	-45	43	-5
26 MAY	-2	43	176	152	89	-19	-24	59
2 JUN	33	124	175	213	184	178	156	152
9 JUN	36	127	71	17	6	52	141	64
16 JUN	116	83	131	136	135	21	60	97
23 JUN	97	92	8	49	279	299	118	135
30 JUN	124	26	73	97	155	190	135	114
7 JUL	61	78	84	8	4	48	36	46
14 JUL	53	88	99	128	109	136	243	122
21 JUL	228	215	137	146	198	144	156	175
28 JUL	113	178	123	54	35	64	124	99
4 AUG	105	82	81	103	30	26	45	67
11 AUG	101	107	23	53	43	104	43	68
18 AUG	-3	-6	3	24	-10	-14	-5	-2
25 AUG	-22	-37	-19	80	86	-7	19	14
1 SEP	91	145	67	12	17	26	14	53
8 SEP	31	9	13	57	49	-28	28	23
15 SEP	17	33	29	99	90	81	77	61
22 SEP	18	0	6	13	76	100	41	36
29 SEP	-2	43	116	48	-5	44	31	39
6 OCT	91	107	52	-1	-6	-70	-32	20
13 OCT	-25	-64	-12	-26	45	56	-11	-5
20 OCT	14	-52	-13	-81	-11	43	-38	-20
27 OCT	-150	-292	-133	5	-11	-351	10	-132
3 NOV	57	-82	-44	-225	-149	-60	-8	-73
10 NOV	-130	-38	60	54	-89	-2	-109	-36
17 NOV	-275	-72	-235	-87	-193	-20	-34	-131
24 NOV	105	32	-29	11	-227	5	-59	-23
1 DEC	71	-67	-110	-44	11	-126	-144	-59
8 DEC	-198	-191	-103	-29	-341	-664	-289	-259
15 DEC	2	1	-6	166	78	32	-97	25
22 DEC	-647	-705	-133	32	43	-129	39	-214
29 DEC	15	-215	-295	-72	-71	-125	-27	-113



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 42N, 125W

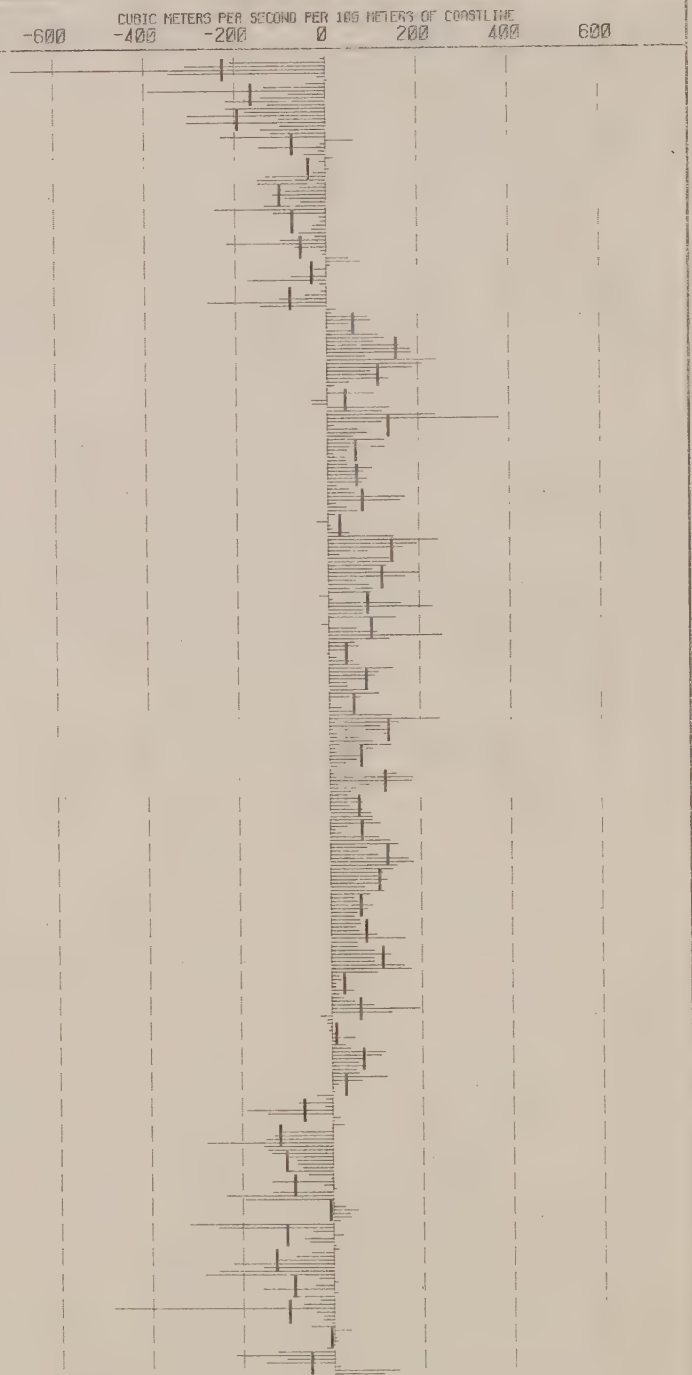
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-19	-19	71	3	-103	-187	-43	-42
12 JAN	-50	-30	-26	-13	-11	-5	-12	-21
19 JAN	29	23	35	22	-20	-57	-59	-4
26 JAN	-1	-59	20	-151	21	-33	22	-26
2 FEB	-22	-90	-50	-49	26	-300	-268	-119
9 FEB	-126	-451	-3	49	-74	-544	-175	-189
16 FEB	-358	-171	31	149	56	1	-81	-53
23 FEB	-103	-35	-28	-150	-189	-17	-86	-88
2 MAR	-108	80	44	118	151	32	16	49
9 MAR	122	17	2	47	55	-6	-69	24
16 MAR	-276	-90	4	-10	20	91	116	-21
23 MAR	47	-88	-44	-9	10	-24	-104	-30
30 MAR	-93	-12	-72	16	-246	-156	6	-71
6 APR	13	-13	-11	11	15	-1	19	5
13 APR	10	48	44	3	20	11	32	24
20 APR	10	5	-23	-52	-0	2	11	-7
27 APR	17	127	157	98	180	182	209	138
4 MAY	221	262	150	7	-2	43	97	112
11 MAY	67	48	25	29	6	12	13	29
18 MAY	21	31	86	45	23	-18	-8	26
25 MAY	-115	-66	-20	7	38	155	237	33
1 JUN	191	109	36	50	26	30	97	77
8 JUN	105	55	35	11	35	42	59	49
15 JUN	148	106	40	32	39	54	65	72
22 JUN	31	59	44	80	57	65	40	54
29 JUN	83	86	57	75	129	164	188	112
6 JUL	156	143	138	122	69	94	124	121
13 JUL	124	131	126	116	155	145	161	137
20 JUL	218	202	120	67	104	147	105	137
27 JUL	130	116	121	135	160	193	237	156
3 AUG	176	140	153	160	145	119	151	149
10 AUG	189	160	88	105	65	137	166	130
17 AUG	59	69	29	19	164	81	42	66
24 AUG	0	50	30	80	138	131	115	78
31 AUG	70	112	222	352	150	87	40	147
7 SEP	26	21	70	105	102	84	163	82
14 SEP	108	20	-28	-55	-27	-7	13	3
21 SEP	15	-6	4	-9	53	46	3	15
28 SEP	8	33	28	69	93	76	19	47
5 OCT	-29	-93	-141	-24	-12	26	5	-38
12 OCT	2	-23	-100	-65	-29	63	107	-6
19 OCT	30	11	-1	23	13	-1	-159	-12
26 OCT	-239	-25	-4	-2	-0	-15	-43	-47
2 NOV	-3	-2	-165	-134	-75	-149	9	-74
9 NOV	11	33	20	2	-24	-9	85	17
16 NOV	51	-7	-68	-203	-78	22	-3	-41
23 NOV	1	-1	-14	-21	-8	-28	-160	-33
30 NOV	-111	-175	-161	-27	14	-79	-2	-77
7 DEC	-22	-4	-63	-302	-745	-256	-357	-261
14 DEC	-27	-120	-246	-393	-396	-258	-205	-235
21 DEC	-34	-350	-45	-119	-2	66	14	-67
28 DEC	18	16	10	1	21	-6	10	10



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 42N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	-9	-208	-309	-692	-343	-17	4	-225
11 JAN	-99	-134	-390	-80	-140	-220	-126	-161
18 JAN	-218	-176	-301	-102	-303	-100	-142	-192
25 JAN	-121	-230	60	-11	-146	-15	-46	-72
1 FEB	17	-14	55	7	-37	-133	-149	-36
8 FEB	-148	-55	-88	-117	-96	-55	-135	-99
15 FEB	-244	-115	-14	-11	-28	-31	-58	-71
22 FEB	-24	-100	-217	-69	-11	-7	47	-54
1 MAR	74	7	-27	-2	-76	-171	-14	-30
8 MAR	-3	-10	-46	-101	-259	-145	20	-78
15 MAR	10	88	97	48	2	58	112	59
22 MAR	127	102	158	181	184	84	241	154
29 MAR	209	186	97	108	134	47	15	114
5 APR	-0	101	-2	-34	-31	137	120	42
12 APR	236	375	118	14	67	86	55	136
19 APR	125	61	127	41	12	38	30	63
26 APR	43	96	80	59	87	75	19	65
3 MAY	47	59	168	159	15	40	64	79
10 MAY	15	-3	-23	4	10	45	145	28
17 MAY	242	195	163	86	25	135	145	141
24 MAY	126	97	199	168	60	88	96	119
31 MAY	92	-19	8	159	229	75	74	88
7 JUN	147	3	-16	60	105	247	132	97
14 JUN	55	63	33	-5	16	51	66	40
21 JUN	140	100	99	79	37	40	81	83
28 JUN	109	68	1	2	26	52	136	56
5 JUL	243	152	111	125	126	67	97	132
12 JUL	137	106	55	67	57	34	46	72
19 JUL	77	146	162	179	125	100	47	123
26 JUL	38	65	69	44	70	88	92	67
2 AUG	91	110	38	9	25	106	132	73
9 AUG	147	81	59	105	170	183	146	127
16 AUG	135	114	101	124	100	73	116	110
23 AUG	86	49	59	92	79	56	50	67
30 AUG	62	65	53	60	101	161	57	80
6 SEP	60	94	131	95	93	161	176	116
13 SEP	100	16	19	8	8	48	16	31
20 SEP	25	49	93	195	132	-23	-10	66
27 SEP	-10	-3	-5	12	50	8	20	11
4 OCT	39	117	109	68	57	66	55	73
11 OCT	57	120	64	12	2	5	-35	32
18 OCT	-15	-74	-17	-109	-142	16	3	-60
25 OCT	23	-2	-110	-128	-147	-276	-152	-113
1 NOV	-143	-134	-105	-81	-78	-66	-99	-101
8 NOV	-54	-3	-135	-20	5	-132	-234	-82
15 NOV	-192	1	25	54	97	39	14	-3
22 NOV	-315	-252	-44	20	-65	-52	4	-101
29 NOV	11	-48	-82	-123	-220	-153	-252	-124
6 DEC	-281	-33	7	-40	-157	9	-89	-83
13 DEC	-31	-66	-484	-39	-22	-25	-5	-96
20 DEC	-50	37	-2	4	7	-7	-16	-4
27 DEC	-124	-215	-104	-150	11	142	109	-47



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

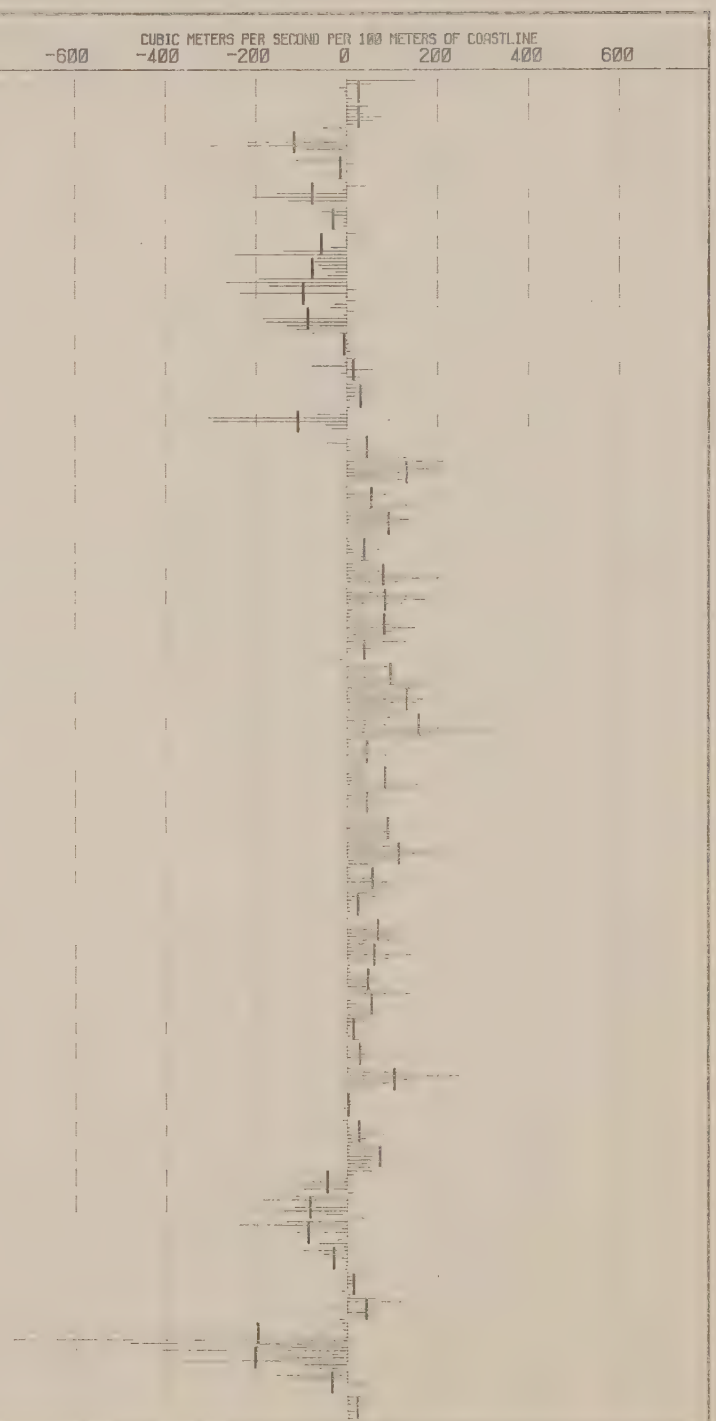
DURING 1971 AT 42N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	8	-5	38	65	52	20	-4	25
10 JAN	-9	-6	-30	-51	-553	-557	-397	-229
17 JAN	-64	-51	36	109	86	64	53	31
24 JAN	4	-32	-10	1	-3	-15	-22	-11
31 JAN	-1	112	120	-8	-1	5	16	36
7 FEB	-1	-28	-59	-29	-50	-18	-8	-25
14 FEB	-90	-19	-30	30	31	75	2	-1
21 FEB	-6	60	10	125	174	-1	131	70
28 FEB	168	-6	-119	35	86	-28	-248	-16
7 MAR	20	3	32	-193	-461	6	-106	-110
14 MAR	-57	7	160	59	36	16	17	25
21 MAR	-16	-151	-52	2	-414	-229	-44	-129
28 MAR	-17	-20	76	8	3	60	46	22
4 APR	4	-13	36	-24	-100	-95	-47	-43
11 APR	-7	-84	-22	154	87	10	151	41
18 APR	89	19	136	-20	-17	91	269	81
25 APR	229	64	60	47	-2	-43	-4	53
2 MAY	56	140	121	145	169	55	55	109
9 MAY	36	45	5	3	20	16	56	26
16 MAY	122	54	52	178	252	248	188	156
23 MAY	112	61	91	145	215	106	199	133
30 MAY	207	130	31	54	52	11	33	74
6 JUN	72	125	64	11	83	62	27	63
13 JUN	30	113	182	151	20	12	1	74
20 JUN	1	8	18	61	4	15	59	24
27 JUN	71	84	105	153	184	222	129	135
4 JUL	143	100	123	40	-6	14	30	63
11 JUL	71	102	130	128	119	141	38	104
18 JUL	58	17	24	45	89	134	88	65
25 JUL	43	39	26	40	8	8	22	27
1 AUG	61	49	32	30	31	47	16	38
8 AUG	4	39	50	75	128	47	25	53
15 AUG	22	47	54	39	12	-11	1	23
22 AUG	66	55	70	107	54	13	10	54
29 AUG	10	-5	-25	-56	63	19	5	2
5 SEP	65	106	6	25	13	15	60	41
12 SEP	113	234	136	84	32	-12	-11	82
19 SEP	31	47	-1	-5	4	66	61	29
26 SEP	25	-1	16	55	61	12	-1	24
3 OCT	3	-16	-4	30	29	-6	4	6
10 OCT	28	55	42	146	119	219	179	113
17 OCT	25	-146	-128	1	-95	-13	45	-44
24 OCT	15	-1	94	144	111	21	36	60
31 OCT	1	38	1	-9	50	35	-40	11
7 NOV	-12	-273	-375	-92	-70	-156	65	-130
14 NOV	54	59	64	43	50	5	0	39
21 NOV	14	-10	-113	-31	-205	-104	-109	-80
28 NOV	-98	109	30	-205	-5	41	-63	-27
5 DEC	41	175	51	-86	60	73	-195	18
12 DEC	84	4	113	43	-7	-25	4	31
19 DEC	11	-39	-93	-133	-442	-22	-11	-101
26 DEC	-44	33	-1	-2	5	12	6	1

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1972 AT 42N, 125W

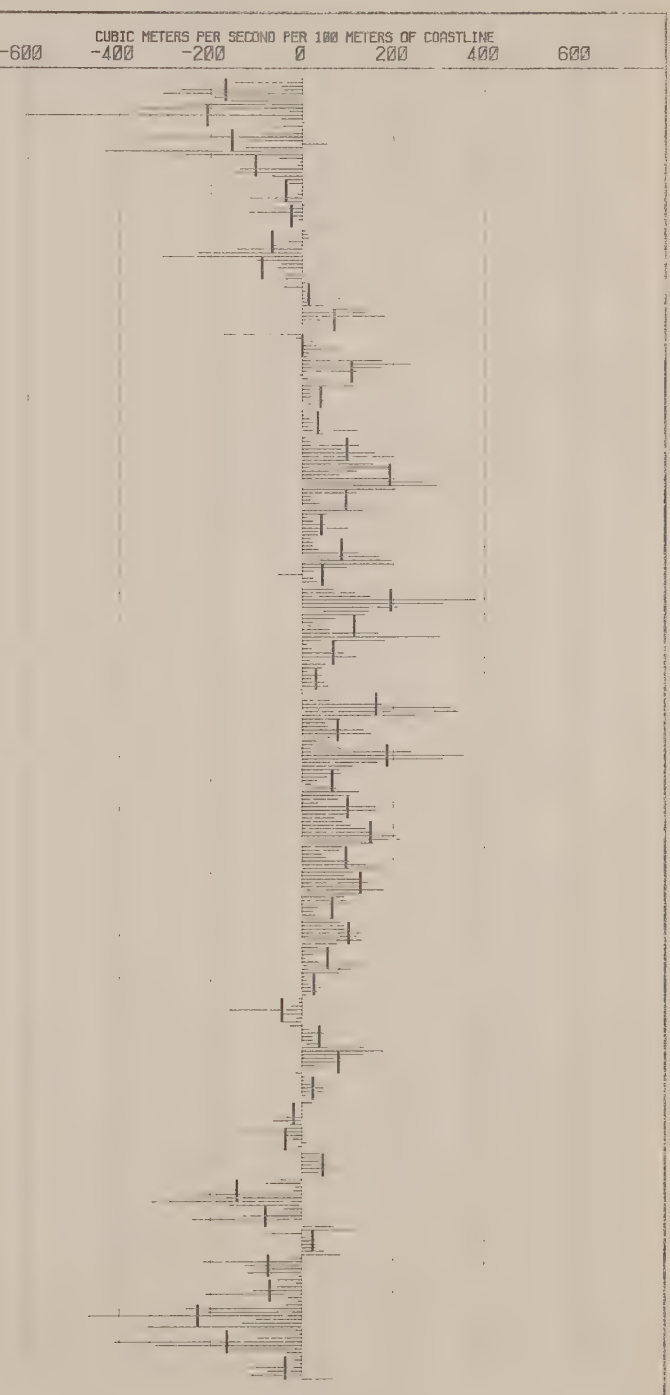
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	150	51	-16	-4	-2	10	2	27
9 JAN	46	23	37	76	56	14	-51	29
16 JAN	-23	-9	-109	-218	-307	-89	-55	-115
23 JAN	13	-120	85	-14	-3	-17	-21	-11
30 JAN	-10	44	-8	-151	-206	-128	-59	-74
6 FEB	-60	-54	-30	-5	-7	-7	-29	-29
13 FEB	45	1	-2	1	-35	-138	-245	-53
20 FEB	-64	-70	-63	-55	-24	-42	-194	-73
27 FEB	-265	-170	23	-235	-2	17	-26	-94
5 MAR	-36	69	-7	-191	-178	-131	-120	-85
12 MAR	-76	5	0	3	-5	9	33	-4
19 MAR	22	-4	-77	56	-13	27	93	15
26 MAR	71	63	54	28	7	-9	6	31
2 APR	0	-65	-304	-293	-47	-31	3	-105
9 APR	12	10	-45	84	62	66	136	46
16 APR	212	226	198	117	60	123	2	134
23 APR	-122	20	87	46	68	164	127	56
30 APR	86	87	136	132	113	74	26	94
7 MAY	-1	5	57	72	57	45	50	41
14 MAY	50	15	80	120	204	117	4	81
21 MAY	-5	81	170	172	123	38	19	85
28 MAY	7	37	101	116	150	100	81	85
4 JUN	78	129	83	61	-14	-4	-51	40
11 JUN	25	87	55	76	111	158	176	99
18 JUN	184	138	105	169	156	92	94	134
25 JUN	136	101	55	87	220	321	195	159
2 JUL	51	16	42	85	87	17	23	46
9 JUL	48	34	28	36	122	195	142	86
16 JUL	69	39	100	63	18	8	25	46
23 JUL	79	75	72	85	100	133	102	92
30 JUL	50	102	185	183	120	115	59	116
6 AUG	21	16	27	79	88	100	81	59
13 AUG	80	67	13	5	10	5	-4	25
20 AUG	-14	2	64	108	118	106	106	70
27 AUG	49	61	54	145	92	34	5	63
3 SEP	4	16	59	73	41	40	98	47
10 SEP	142	39	12	22	41	69	63	56
17 SEP	51	37	7	-41	-4	26	29	15
24 SEP	17	-4	45	83	41	8	19	30
1 OCT	62	126	245	152	95	56	5	106
8 OCT	5	10	14	9	-7	-1	-2	4
15 OCT	-10	-4	10	53	85	40	19	28
22 OCT	58	133	43	58	84	45	93	74
29 OCT	54	13	-90	-85	-108	-155	17	-42
5 NOV	-120	-187	1	-116	-155	-46	57	-81
12 NOV	-133	-241	-14	-112	-1	-22	-62	-84
19 NOV	-8	-99	-58	-11	-3	-5	-12	-28
26 NOV	61	22	18	23	-0	-13	5	17
3 DEC	64	128	-48	63	70	50	-18	44
10 DEC	-11	-22	-14	-2	-106	-738	-481	-196
17 DEC	-202	-419	-70	-168	-361	-97	-99	-202
24 DEC	-29	-171	-115	23	60	-1	12	-31
31 DEC	90	9	48	50	21	5	14	25



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 42N, 125W

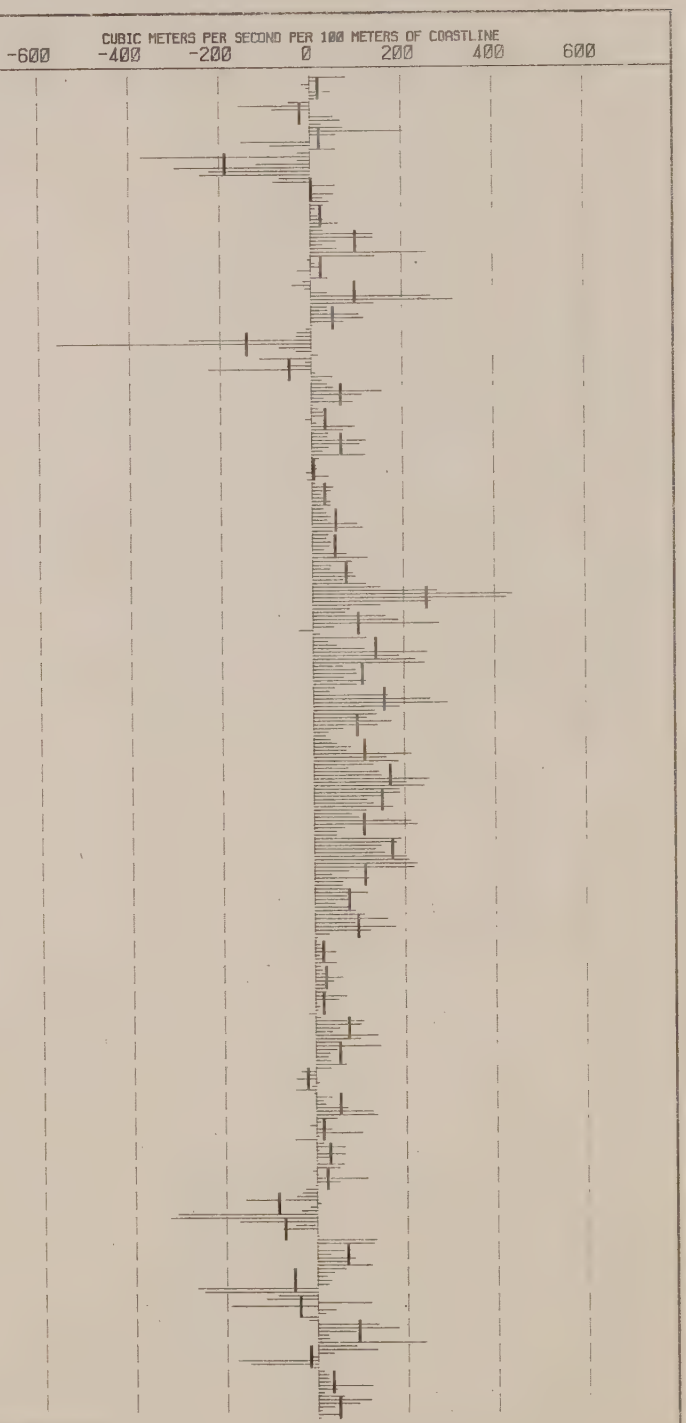
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-13	-180	-46	-269	-304	-194	-156	-166
14 JAN	-263	-368	-51	-606	-47	4	-107	-205
21 JAN	-0	-81	-363	-110	54	-124	-432	-152
28 JAN	-294	-49	-4	-11	-135	-143	-66	-101
4 FEB	-35	-29	3	-2	-9	-115	-55	-34
11 FEB	5	-60	-115	-25	-0	-1	52	-22
18 FEB	5	20	16	-44	-70	-143	-231	-64
25 FEB	-307	-101	-46	-59	0	-42	-45	-86
4 MAR	5	-49	5	3	81	21	46	16
11 MAR	138	136	180	38	-0	20	3	72
18 MAR	-172	-13	27	30	91	35	20	3
25 MAR	176	241	177	117	-7	12	56	110
1 APR	112	37	19	20	46	64	-5	42
8 APR	-1	5	24	26	27	122	48	36
15 APR	9	18	124	83	159	200	102	99
22 APR	156	194	117	79	204	308	299	194
29 APR	205	118	19	18	39	149	133	97
6 MAY	56	13	24	50	100	36	34	45
13 MAY	20	23	22	37	124	197	197	89
20 MAY	199	98	27	-57	24	34	2	47
27 MAY	69	113	148	379	311	207	148	197
3 JUN	140	73	25	43	62	166	305	116
10 JUN	179	10	20	90	117	18	51	69
17 JUN	41	12	45	20	40	57	-5	31
24 JUN	-6	0	60	174	327	344	258	164
1 JUL	82	49	58	133	149	61	31	80
8 JUL	56	86	239	357	308	163	110	188
15 JUL	80	86	54	33	20	75	124	67
22 JUL	106	77	33	161	162	101	69	101
29 JUL	89	105	137	154	207	216	156	152
5 AUG	88	79	42	55	103	136	177	97
12 AUG	114	94	126	145	128	179	124	130
19 AUG	92	97	101	37	28	28	94	68
26 AUG	86	93	93	130	117	131	76	104
2 SEP	34	60	26	8	38	131	109	58
9 SEP	80	6	12	15	42	31	9	28
16 SEP	-6	-5	-22	-158	-43	-11	-41	-41
23 SEP	-27	26	50	24	25	46	130	40
30 SEP	178	135	93	83	69	22	-13	81
7 OCT	8	5	50	46	49	7	11	25
14 OCT	23	-1	3	-2	-41	-62	-26	-15
21 OCT	-37	-125	-32	-31	11	-8	-14	-34
28 OCT	44	58	38	70	80	38	6	48
4 NOV	-54	-81	-13	-17	-224	-266	-327	-141
11 NOV	-161	-38	-59	-128	-240	1	73	-79
18 NOV	114	-82	10	29	31	31	47	26
25 NOV	85	-28	-219	-123	-86	-119	-7	-71
2 DEC	-58	-13	-55	-107	-210	-31	-8	-69
9 DEC	-33	-254	-220	-473	-99	-129	-369	-225
16 DEC	-106	-16	-95	-414	-320	-154	-32	-162
23 DEC	-13	-16	-3	-117	-74	-109	90	-35



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 39N, 125W

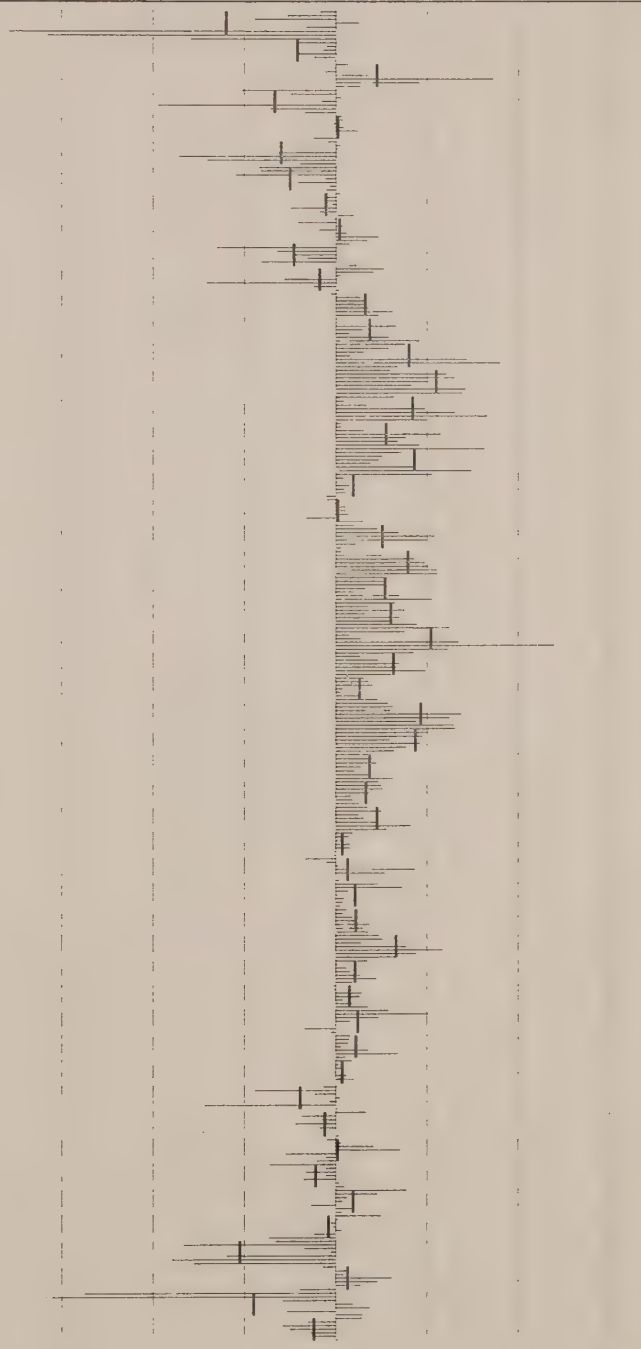
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	77	13	-17	-6	44	18	9	20
8 JAN	-47	-157	-82	3	50	66	24	-20
15 JAN	71	204	56	0	-150	-85	55	22
22 JAN	-26	-371	-25	-119	-290	-222	-241	-186
29 JAN	-66	-80	54	4	50	26	40	4
5 FEB	29	11	3	16	91	59	23	24
12 FEB	28	137	136	56	26	58	255	99
19 FEB	141	-7	8	20	-29	-0	36	24
26 FEB	-15	-40	-12	36	262	311	139	97
5 MAR	35	37	103	114	72	1	-9	50
12 MAR	-31	-33	-268	-560	-70	-32	14	-140
19 MAR	-112	-12	-52	-227	8	46	23	-47
26 MAR	33	49	154	111	26	90	2	66
2 APR	15	24	29	-12	11	95	69	33
9 APR	35	34	118	103	37	22	115	66
16 APR	14	1	7	9	-11	37	-11	7
23 APR	5	46	40	19	25	40	41	31
30 APR	24	29	41	31	97	110	44	54
7 MAY	35	30	41	35	23	75	120	51
14 MAY	86	41	37	88	94	66	116	75
21 MAY	148	272	437	423	260	147	80	252
28 MAY	69	159	185	275	46	-30	14	103
4 JUN	116	31	52	112	250	188	224	139
11 JUN	245	63	93	94	65	114	94	110
18 JUN	47	33	161	255	294	188	134	159
25 JUN	137	116	171	140	64	32	27	98
2 JUL	35	50	81	72	214	159	185	114
9 JUL	190	75	142	147	253	202	242	170
16 JUL	187	188	151	117	130	172	113	151
23 JUL	81	99	211	226	67	49	49	112
30 JUL	190	181	145	135	154	202	208	173
6 AUG	226	217	74	37	117	62	61	113
13 AUG	75	117	69	78	44	73	87	77
20 AUG	108	160	88	179	121	29	4	99
27 AUG	3	10	19	43	7	17	46	21
3 SEP	11	13	26	59	40	18	18	26
10 SEP	21	69	49	2	7	4	-13	20
17 SEP	10	106	99	51	96	137	99	77
24 SEP	52	142	46	29	26	32	65	56
1 OCT	32	-32	-20	-42	6	-8	-45	-15
8 OCT	-4	34	14	20	67	124	133	56
15 OCT	43	6	-14	33	101	9	-46	18
22 OCT	14	62	4	69	90	-1	59	33
29 OCT	50	-9	2	113	50	-2	-23	26
5 NOV	-32	-43	-156	7	-15	-34	-307	-83
12 NOV	-322	-170	-46	-74	-0	2	130	-69
19 NOV	124	2	58	27	83	70	119	69
26 NOV	63	35	19	30	24	-264	-247	-49
3 DEC	-86	-111	118	-191	98	15	-94	-36
10 DEC	-19	135	179	85	22	25	238	95
17 DEC	84	130	33	-11	-176	-147	-10	-14
24 DEC	12	23	23	26	119	41	12	37
31 DEC	57	116	90	35	6	49	4	51



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 39N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-33	-107	-177	52	-64	-713	-631	-239
14 JAN	-317	-93	-18	-25	-82	-45	-5	-82
21 JAN	27	-2	-22	68	349	181	51	92
28 JAN	-205	-99	10	-29	-388	-142	-67	-131
4 FEB	12	15	-3	15	48	3	-48	6
11 FEB	-16	11	2	-124	-343	-279	-77	-118
18 FEB	-173	-164	-218	-22	-82	-12	-20	-99
25 FEB	7	-24	-20	-6	-99	-34	40	-19
3 MAR	-1	-83	14	-36	23	92	68	11
10 MAR	28	-261	-128	-87	-62	-162	44	-90
17 MAR	103	82	9	-112	-283	-49	7	-35
24 MAR	-9	52	64	62	73	124	92	65
31 MAR	-0	23	129	59	28	115	182	76
7 APR	149	113	59	30	289	359	135	162
14 APR	119	241	260	202	164	285	277	221
21 APR	127	15	67	193	260	332	201	171
28 APR	13	10	60	230	152	135	182	112
5 MAY	326	145	100	93	77	174	296	173
12 MAY	209	16	2	29	18	21	-21	39
19 MAY	-26	-2	20	21	28	-63	61	5
26 MAY	59	89	135	216	198	44	9	104
2 JUN	10	99	169	194	200	221	221	159
9 JUN	103	107	106	63	41	139	209	110
16 JUN	120	72	149	67	139	121	176	122
23 JUN	248	150	29	53	267	477	245	210
30 JUN	169	52	92	141	129	197	120	129
7 JUL	60	70	79	15	13	59	89	55
14 JUL	114	126	119	275	248	173	257	187
21 JUL	262	203	189	119	184	153	127	176
28 JUL	70	78	89	57	40	75	125	76
4 AUG	92	98	102	72	32	36	49	69
11 AUG	69	97	50	59	92	163	111	92
18 AUG	37	27	5	31	29	-2	-11	17
25 AUG	-68	-20	4	172	106	1	7	29
1 SEP	94	143	26	1	17	15	9	43
8 SEP	21	13	37	47	71	57	70	45
15 SEP	95	101	55	154	235	175	129	135
22 SEP	67	3	23	31	56	88	36	43
29 SEP	-3	-1	57	52	15	34	70	32
6 OCT	113	202	91	30	-1	-69	-10	51
13 OCT	31	28	26	11	71	137	20	46
20 OCT	33	5	11	-2	21	38	0	15
27 OCT	-26	-175	-45	7	-13	-287	3	-77
3 NOV	65	-74	-28	-87	-33	-1	6	-22
10 NOV	-18	10	81	139	-110	-19	-39	6
17 NOV	-144	-20	-64	-21	-69	5	18	-42
24 NOV	155	90	24	14	-55	36	11	39
1 DEC	98	5	-10	-5	11	-46	-146	-13
8 DEC	-132	-333	-68	-10	-238	-359	-314	-207
15 DEC	-29	23	16	122	89	54	-77	28
22 DEC	-550	-637	-115	37	75	-106	58	-177
29 DEC	55	-61	-116	-100	-53	-48	4	-45



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

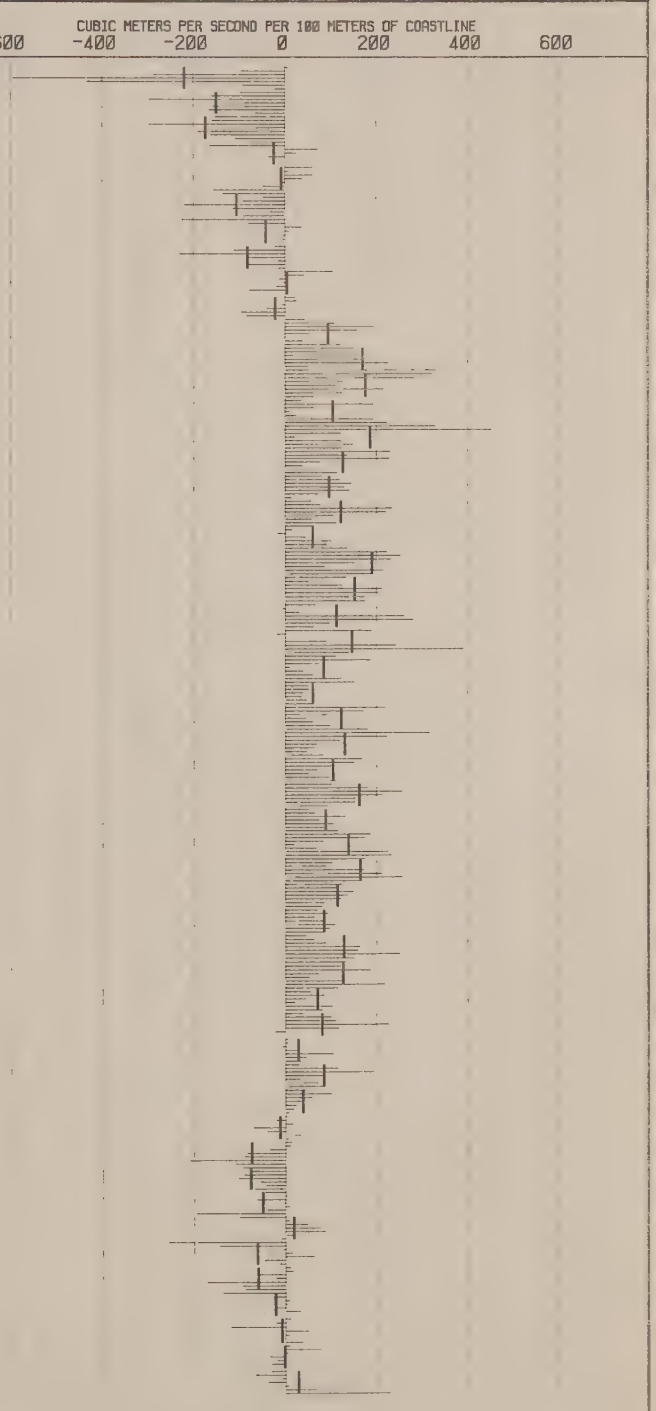
DURING 1969 AT 39N, 125W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	3	-1	58	89	-32	-97	-102	-12
12 JAN	-201	5	9	10	-21	-41	-47	-41
19 JAN	-14	-25	52	30	-50	-42	-86	-19
26 JAN	90	64	98	-10	36	35	54	54
2 FEB	3	-42	-36	-167	83	-104	-273	-76
9 FEB	-139	-433	8	130	-42	-371	-90	-134
16 FEB	-387	-122	66	107	160	9	-41	-17
23 FEB	-115	-31	-27	-192	-206	-40	-37	-84
2 MAR	-55	157	218	169	181	81	11	109
9 MAR	156	44	8	59	63	16	-52	44
16 MAR	-174	-32	24	1	-11	86	159	9
23 MAR	76	36	-31	-7	4	-12	-50	-8
30 MAR	-8	28	-13	10	-105	-226	-3	-45
6 APR	-3	-27	-6	45	121	35	51	31
13 APR	62	123	161	87	84	67	100	98
20 APR	61	28	-53	-8	16	60	107	33
27 APR	63	134	278	118	241	375	394	229
4 MAY	369	269	81	-1	-8	68	118	128
11 MAY	75	9	2	23	20	17	13	23
18 MAY	64	113	148	127	81	1	-2	76
25 MAY	-40	-28	14	124	153	249	305	111
1 JUN	191	74	15	13	12	39	96	63
8 JUN	114	40	36	23	27	46	89	54
15 JUN	164	152	28	16	51	66	127	86
22 JUN	110	130	82	101	149	180	141	139
29 JUN	204	140	91	149	313	328	316	221
6 JUL	287	239	186	166	147	167	228	203
13 JUL	249	222	250	251	270	178	139	223
20 JUL	142	228	93	21	29	100	125	105
27 JUL	140	141	163	175	206	260	312	200
3 AUG	346	215	323	310	279	222	217	273
10 AUG	323	256	333	184	86	210	240	233
17 AUG	110	85	61	80	140	131	56	95
24 AUG	31	185	107	233	252	230	147	169
31 AUG	77	115	225	409	151	94	32	158
7 SEP	18	53	99	160	131	138	204	115
14 SEP	121	56	3	-16	-1	20	45	33
21 SEP	93	25	35	60	120	54	9	57
28 SEP	16	66	99	168	254	157	25	112
5 OCT	-4	-12	-32	30	-13	17	5	-1
12 OCT	3	-21	-130	-91	-11	60	131	-8
19 OCT	45	38	16	23	3	1	-61	9
26 OCT	-78	-0	47	46	22	9	-2	6
2 NOV	16	14	-37	-7	-4	-129	-15	-23
9 NOV	40	30	-14	-22	-14	-6	103	17
16 NOV	87	9	-28	-86	-20	75	40	11
23 NOV	9	11	5	9	19	9	-16	7
30 NOV	-45	-61	-29	28	32	2	28	-6
7 DEC	7	6	-30	-260	-562	-247	-306	-200
14 DEC	-20	-94	-143	-286	-406	-279	-244	-210
21 DEC	-7	-119	-38	-56	47	106	109	6
28 DEC	107	44	14	8	6	-9	8	25

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 39N, 125W

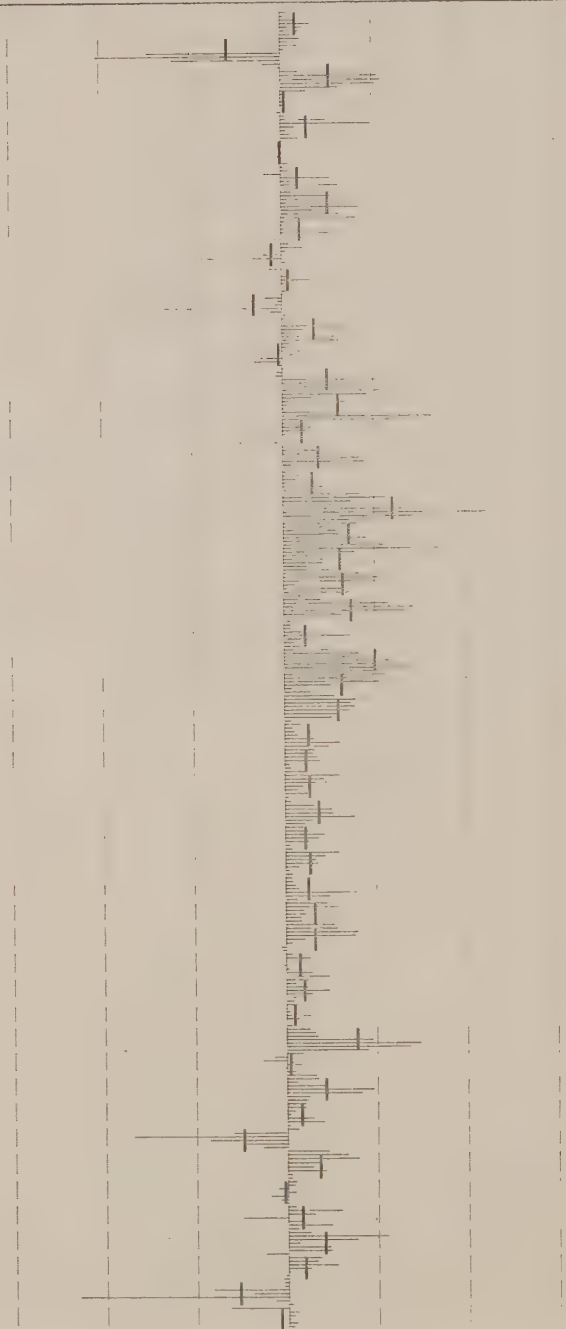
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	7	-96	-298	-593	-434	-92	-22	-218
11 JAN	-96	-160	-296	-88	-160	-166	-64	-147
18 JAN	-152	-158	-297	-140	-189	-162	-109	-173
25 JAN	-73	-164	71	25	-95	13	7	-22
1 FEB	67	10	59	36	-10	-48	-155	-6
8 FEB	-136	-49	-91	-219	-115	-32	-90	-105
15 FEB	-225	-79	36	11	-4	-4	-19	-41
22 FEB	-22	-112	-291	-80	-26	-78	-13	-80
1 MAR	104	42	-12	-1	-18	-78	-1	5
8 MAR	24	23	-7	-39	-96	-84	44	-19
15 MAR	109	196	159	55	0	38	120	97
22 MAR	152	119	161	170	225	52	331	173
29 MAR	323	284	129	111	216	124	62	178
5 APR	36	193	64	10	26	194	222	107
12 APR	330	451	123	21	121	147	122	188
19 APR	231	135	228	75	39	80	114	129
26 APR	79	118	145	127	140	72	11	99
3 MAY	56	76	234	219	105	60	112	123
10 MAY	59	14	-16	44	100	90	135	61
17 MAY	222	251	234	150	86	216	190	193
24 MAY	131	51	125	213	204	175	175	153
31 MAY	66	-4	29	261	281	97	62	113
7 JUN	188	-17	-0	91	243	391	137	147
14 JUN	109	187	75	8	38	59	122	86
21 JUN	149	50	52	41	34	47	56	61
28 JUN	219	173	92	50	59	99	181	125
5 JUL	316	222	118	68	66	46	81	131
12 JUL	166	149	103	70	51	97	112	107
19 JUL	101	182	255	214	152	153	93	164
26 JUL	52	64	130	74	105	88	113	89
2 AUG	185	176	81	18	68	225	232	141
9 AUG	176	102	88	169	211	255	161	166
16 AUG	123	113	149	139	123	83	80	116
23 AUG	71	93	63	86	109	96	82	86
30 AUG	44	63	88	161	157	249	151	130
6 SEP	129	119	186	73	53	123	219	129
13 SEP	115	53	85	44	21	102	81	71
20 SEP	38	101	110	226	116	-22	-0	81
27 SEP	4	4	-5	24	104	44	32	29
4 OCT	31	113	197	87	30	69	81	87
11 OCT	42	100	58	38	25	18	6	41
18 OCT	3	-19	15	-71	-39	31	6	-11
25 OCT	11	10	-34	-85	-90	-209	-100	-72
1 NOV	-91	-76	-90	-102	-54	-43	-65	-75
8 NOV	-45	1	-63	-2	9	-39	-194	-48
15 NOV	-100	9	48	79	90	20	-9	20
22 NOV	-256	-143	-40	15	63	-46	-12	-60
29 NOV	10	18	-59	-20	-172	-94	-89	-58
6 DEC	-136	-27	8	2	-19	31	-0	-20
13 DEC	11	-21	-120	49	9	-2	36	-6
20 DEC	8	80	3	-33	-22	-30	-4	0
27 DEC	-30	-67	-17	-38	6	122	233	30



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 39N, 125W

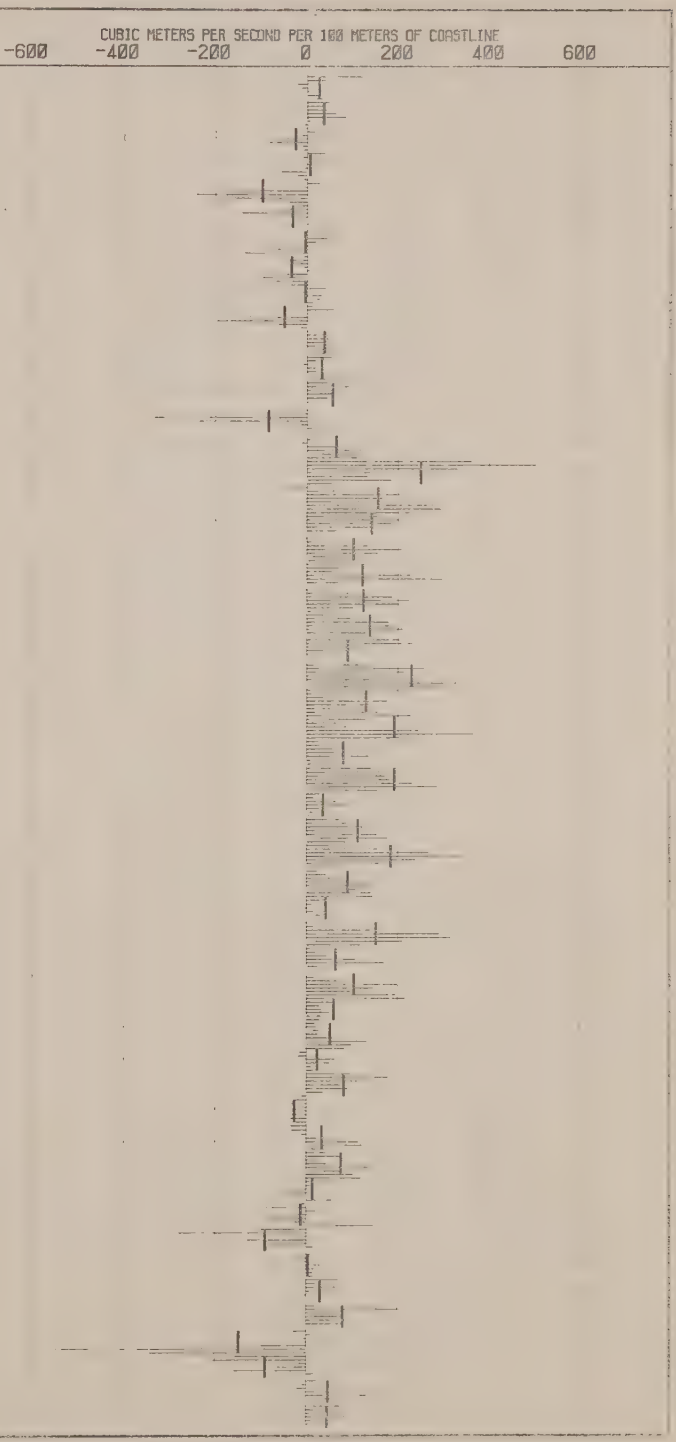
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	27	6	31	63	50	41	21	34
10 JAN	43	31	37	8	-294	-407	-298	-117
17 JAN	-39	-6	38	212	221	206	126	108
24 JAN	56	11	3	7	8	-2	-6	11
31 JAN	8	101	196	30	12	29	37	58
7 FEB	2	-6	-3	3	-6	-1	17	1
14 FEB	4	15	-38	109	21	124	35	39
21 FEB	22	107	91	143	173	69	126	104
28 FEB	178	41	-2	33	106	12	-72	42
7 MAR	19	48	11	-40	-186	10	2	-19
14 MAR	-27	-16	38	93	12	-1	9	16
21 MAR	2	-64	-8	-13	-311	-29	8	-59
28 MAR	22	30	131	48	29	114	125	71
4 APR	18	13	38	23	-53	-75	-4	-5
11 APR	3	-11	-13	206	198	98	222	100
18 APR	186	75	138	33	3	107	327	124
25 APR	269	37	62	85	9	-41	-94	44
2 MAY	2	82	109	168	177	17	3	80
9 MAY	26	66	29	10	85	79	171	66
16 MAY	226	149	131	261	447	288	196	243
23 MAY	162	134	119	119	183	81	220	146
30 MAY	342	157	55	88	87	50	101	126
6 JUN	165	208	201	27	126	146	55	133
13 JUN	79	232	284	268	128	44	12	150
20 JUN	13	16	38	148	63	22	95	48
27 JUN	99	175	166	231	250	273	223	202
4 JUL	225	189	208	101	13	56	109	128
11 JUL	170	143	154	142	118	102	13	120
18 JUL	93	15	19	29	65	121	95	54
25 JUL	64	59	70	75	9	12	45	48
1 AUG	119	85	66	39	28	48	7	56
8 AUG	13	62	103	105	152	60	45	77
15 AUG	38	50	83	71	51	9	14	45
22 AUG	116	86	68	71	29	8	14	56
29 AUG	14	15	20	29	165	96	24	52
5 SEP	90	116	39	42	33	35	106	66
12 SEP	112	160	151	40	12	-11	-6	65
19 SEP	13	51	-0	-3	4	58	95	31
26 SEP	46	19	45	93	56	19	16	42
3 OCT	26	-3	6	54	25	7	17	19
10 OCT	49	63	69	189	294	271	178	159
17 OCT	34	-25	-52	30	-5	18	64	9
24 OCT	68	22	85	189	164	49	45	89
31 OCT	40	41	16	7	58	80	3	35
7 NOV	23	-117	-338	-170	-98	-54	91	-95
14 NOV	131	156	71	56	85	7	8	74
21 NOV	17	14	-20	15	-36	-15	-6	-4
28 NOV	15	118	58	-99	29	97	21	34
5 DEC	47	219	152	24	92	97	-48	83
12 DEC	73	64	108	46	1	-4	-10	40
19 DEC	-7	-8	-163	-77	-459	-27	8	-105
26 DEC	-125	20	12	2	17	12	-29	-13



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1972 AT 39N, 125W

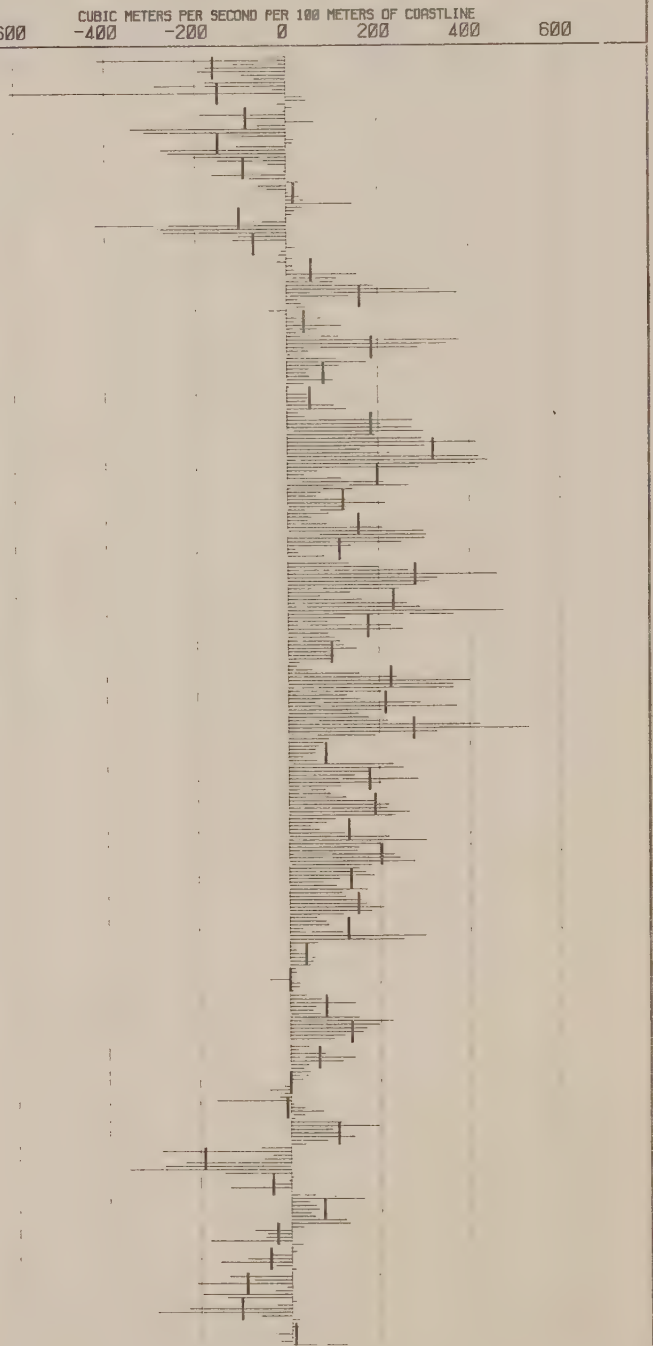
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	121	42	-29	-13	2	29	35	28
9 JAN	49	32	41	63	81	4	-5	38
16 JAN	-5	18	-9	-72	-83	-11	-7	-24
23 JAN	41	-7	78	27	-7	-58	-23	7
30 JAN	-9	25	-13	-183	-241	-218	-39	-97
6 FEB	-24	-50	-142	-14	2	2	10	-31
13 FEB	86	54	45	19	-2	-73	-140	-2
20 FEB	-7	-37	-30	-6	5	-43	-105	-32
27 FEB	-73	-36	42	-20	29	27	15	-2
5 MAR	12	59	6	-142	-195	-62	-15	-48
12 MAR	0	46	55	41	18	53	69	40
19 MAR	56	18	-26	55	19	21	88	33
26 MAR	145	109	51	51	45	3	-4	57
2 APR	1	-32	-344	-236	-12	11	33	-83
9 APR	39	5	-9	69	118	126	108	65
16 APR	300	502	354	160	132	104	67	252
23 APR	-48	60	203	163	139	289	296	157
30 APR	227	186	199	192	137	66	14	143
7 MAY	-2	26	131	208	153	93	125	105
14 MAY	196	72	80	225	333	73	-14	125
21 MAY	-2	93	185	227	201	100	83	127
28 MAY	36	96	179	177	209	128	149	139
4 JUN	202	234	120	89	2	6	-7	92
11 JUN	135	250	213	170	193	334	317	232
18 JUN	222	97	85	177	145	49	153	133
25 JUN	228	131	69	86	245	307	236	194
2 JUL	45	30	57	130	137	80	94	82
9 JUL	141	183	172	190	231	208	156	194
16 JUL	27	15	62	86	27	13	33	38
23 JUL	75	89	122	101	152	178	84	114
30 JUL	65	154	269	343	238	167	60	185
6 AUG	23	43	70	117	135	109	141	92
13 AUG	145	60	12	-5	64	40	-10	45
20 AUG	-16	17	139	209	315	210	118	153
27 AUG	44	40	45	106	171	50	0	66
3 SEP	-0	18	93	198	146	95	195	107
10 SEP	216	56	27	33	52	29	27	63
17 SEP	10	21	27	24	56	135	97	54
24 SEP	69	-13	-19	62	49	10	16	27
1 OCT	99	179	112	77	91	35	-10	83
8 OCT	-23	-33	-13	-4	-30	-33	-26	-23
15 OCT	-33	-31	-9	53	113	122	40	36
22 OCT	66	78	28	41	140	87	101	78
29 OCT	120	53	10	-24	-36	-67	56	16
5 NOV	-9	-88	23	-27	-88	-24	148	-9
12 NOV	-116	-280	-31	-128	-82	15	8	-88
19 NOV	11	-26	-18	30	16	14	16	6
26 NOV	78	80	65	7	-2	-2	1	32
3 DEC	34	215	73	77	99	80	2	82
10 DEC	-29	11	-5	1	-105	-556	-341	-146
17 DEC	-183	-208	-35	-61	-158	33	-8	-88
24 DEC	42	-12	-21	71	188	52	25	49
31 DEC	77	33	74	93	39	4	11	47



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 39N, 125W

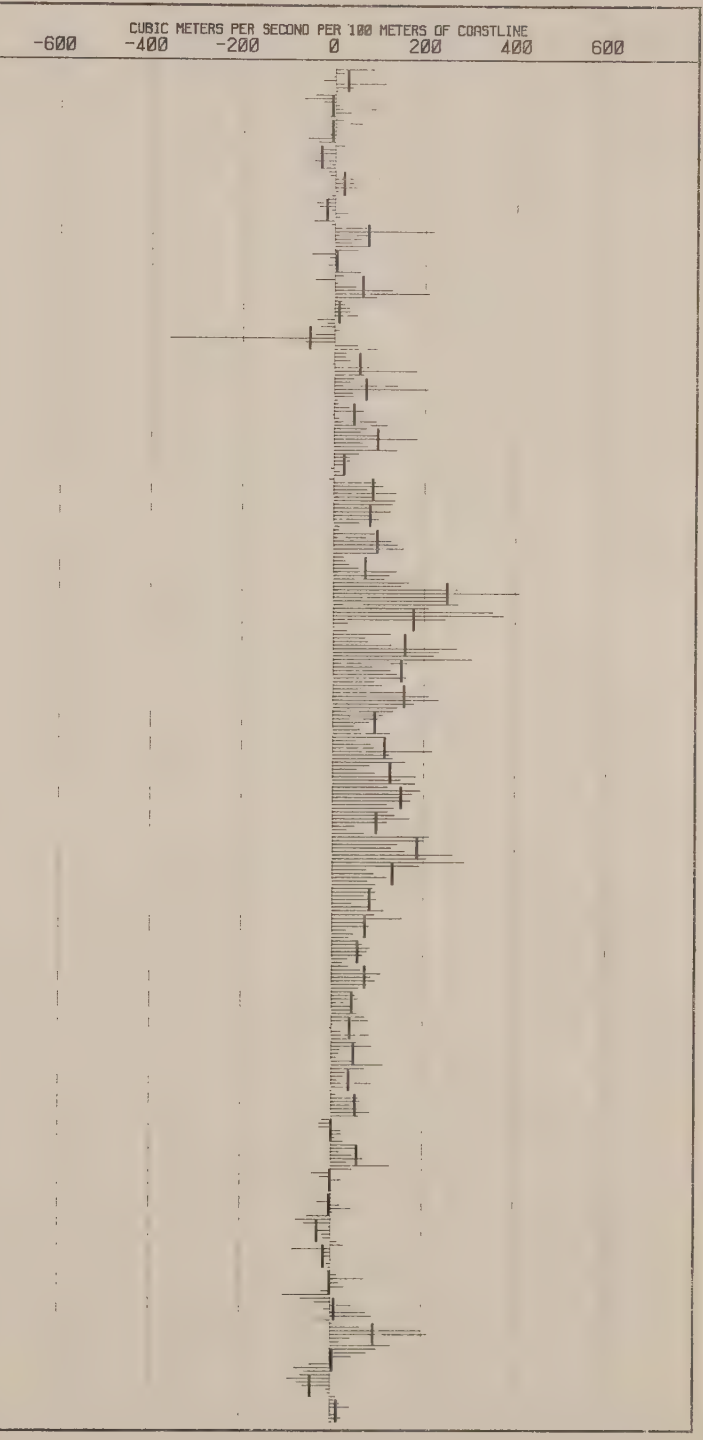
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-41	-414	-113	-175	-191	-100	-68	-157
14 JAN	-184	-289	-27	-609	40	46	-17	-149
21 JAN	15	-7	-187	-86	62	-63	-342	-87
28 JAN	-313	-116	21	14	-109	-274	-265	-149
4 FEB	-212	-150	-38	0	-7	-162	-80	-93
11 FEB	20	-60	-68	10	31	37	144	17
18 FEB	38	17	14	-2	-71	-420	-286	-101
25 FEB	-270	-104	-125	2	27	-10	-15	-71
4 MAR	16	-19	14	20	154	109	103	57
11 MAR	191	314	375	139	24	31	60	162
18 MAR	-38	-12	75	40	120	68	20	39
25 MAR	115	379	353	288	49	28	110	189
1 APR	174	119	51	42	48	99	37	81
8 APR	4	-2	42	51	39	103	129	52
15 APR	24	37	274	205	272	298	191	186
22 APR	293	413	303	160	224	419	441	322
29 APR	413	290	67	36	117	211	269	200
6 MAY	142	71	62	129	214	127	126	124
13 MAY	91	53	45	106	207	298	304	158
20 MAY	301	249	138	16	25	80	9	117
27 MAY	137	199	264	460	328	312	277	282
3 JUN	247	136	69	163	261	290	476	235
10 JUN	364	126	86	226	251	88	104	178
17 JUN	114	123	149	88	99	93	24	99
24 JUN	18	55	157	239	399	362	363	228
1 JUL	203	129	161	289	369	204	153	216
8 JUL	175	217	423	529	329	189	89	279
15 JUL	76	66	61	61	32	64	230	84
22 JUL	252	179	145	283	201	117	79	179
29 JUL	93	125	188	219	215	265	235	192
5 AUG	102	82	47	66	123	221	303	135
12 AUG	207	153	151	232	244	277	184	207
19 AUG	153	168	188	110	77	103	171	139
26 AUG	116	123	158	169	208	179	119	153
2 SEP	60	81	86	28	116	301	252	132
9 SEP	63	2	13	34	56	50	44	38
16 SEP	12	13	-0	-54	22	21	6	3
23 SEP	38	69	144	58	49	69	153	83
30 SEP	226	197	167	160	121	97	-0	138
7 OCT	39	17	76	143	117	41	28	66
14 OCT	44	37	25	4	-14	-50	-91	2
21 OCT	-23	-163	6	33	73	30	7	-5
28 OCT	110	194	92	103	140	81	32	107
4 NOV	-66	-285	-39	-60	-232	-279	-360	-189
11 NOV	-147	4	-5	-41	-131	0	52	-38
18 NOV	161	39	55	59	41	51	121	75
25 NOV	128	25	-81	-53	-55	-179	23	-27
2 DEC	2	10	-46	-96	-156	-35	7	-45
9 DEC	-1	-135	-82	-208	-9	-36	-196	-95
16 DEC	-142	8	-32	-227	-308	-68	16	-108
23 DEC	2	14	2	-35	-2	-27	119	11



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 36N, 122W

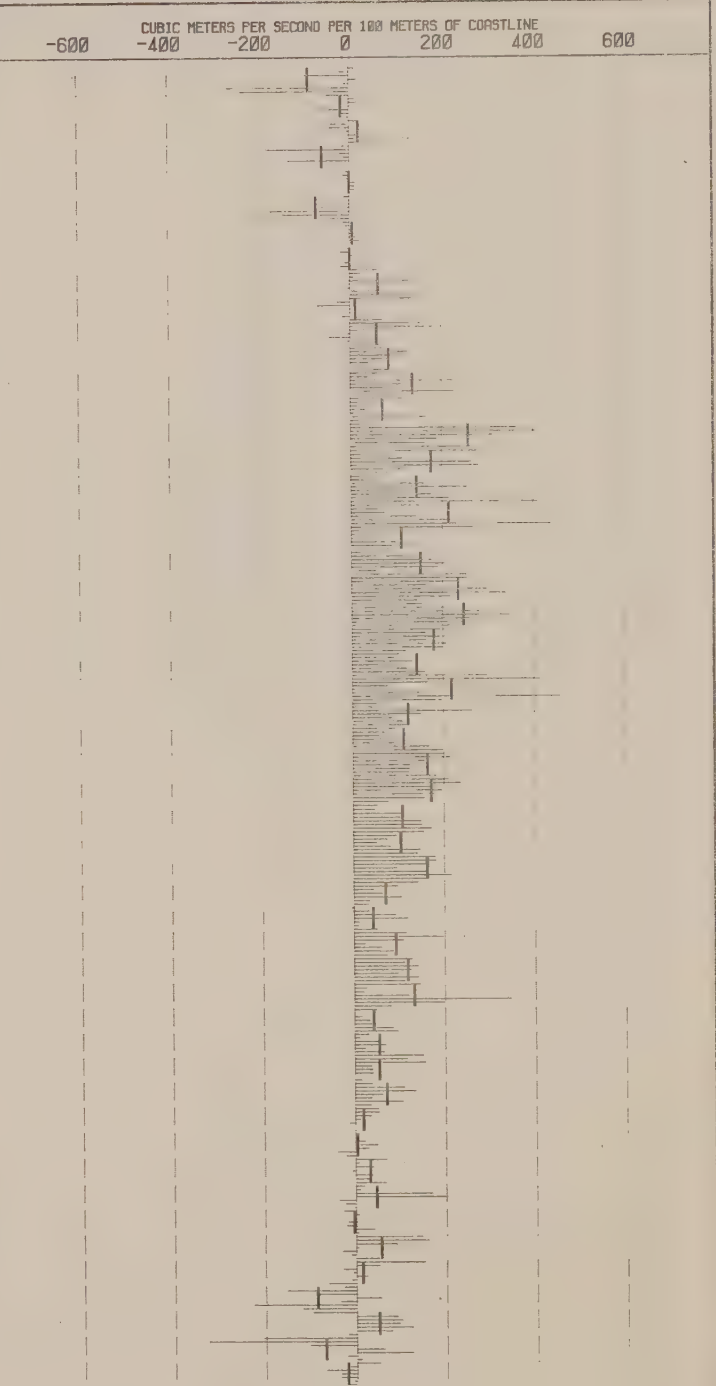
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	85	17	-23	-27	110	39	5	29
8 JAN	-43	-70	-30	8	87	34	-11	-4
15 JAN	20	58	4	-9	-11	-59	-36	-5
22 JAN	19	-48	-67	0	-49	-19	-27	-27
29 JAN	-13	-12	97	41	50	6	-16	22
5 FEB	-18	-40	-34	-9	31	10	-46	-15
12 FEB	-8	79	219	71	58	37	70	75
19 FEB	52	-50	-12	1	-15	3	57	5
26 FEB	19	-43	6	46	126	208	91	65
5 MAR	16	21	32	33	49	-51	-16	12
12 MAR	-30	13	-43	-361	-84	51	96	-51
19 MAR	25	24	34	-3	77	179	65	57
26 MAR	41	33	137	206	41	45	6	73
2 APR	9	33	63	-4	10	93	115	45
9 APR	70	58	97	182	65	77	137	98
16 APR	54	35	35	20	-7	19	20	24
23 APR	-10	92	108	74	137	82	135	88
30 APR	127	82	125	81	98	56	12	83
7 MAY	11	91	70	125	141	151	92	97
14 MAY	23	26	35	54	138	121	112	73
21 MAY	166	148	274	407	254	247	273	253
28 MAY	209	351	373	245	32	1	29	177
4 JUN	127	70	76	128	272	233	219	161
11 JUN	307	162	85	126	140	159	90	153
18 JUN	108	70	160	210	232	179	143	158
25 JUN	131	111	97	80	46	61	126	93
2 JUL	114	52	84	91	217	124	132	116
9 JUL	157	80	52	93	182	147	180	127
16 JUL	121	191	175	150	170	118	133	151
23 JUL	120	135	168	117	48	29	68	98
30 JUL	212	200	141	129	158	264	206	187
6 AUG	291	191	74	89	118	76	94	133
13 AUG	88	95	69	96	41	80	112	83
20 AUG	92	153	74	80	30	47	37	73
27 AUG	53	67	82	76	66	35	22	57
3 SEP	36	62	106	84	95	76	57	74
10 SEP	45	52	59	26	40	41	59	46
17 SEP	72	81	1	-3	20	81	38	41
24 SEP	54	88	17	15	10	46	115	49
1 OCT	73	31	26	12	87	51	-2	40
8 OCT	10	58	63	40	58	85	60	54
15 OCT	-20	-25	-25	21	22	8	26	1
22 OCT	56	60	18	47	70	33	127	59
29 OCT	45	-43	-24	24	1	-1	3	1
5 NOV	-0	-2	-29	20	43	4	-51	-2
12 NOV	-76	-57	-4	-32	-19	-15	14	-27
19 NOV	28	-83	-18	-15	2	-8	-5	-14
26 NOV	-5	15	76	18	29	-20	-107	1
3 DEC	-63	-34	46	-15	78	90	-31	10
10 DEC	4	63	197	211	43	20	132	96
17 DEC	99	79	45	-0	-44	-78	-57	6
24 DEC	-64	-93	-73	-59	-8	-4	13	-41
31 DEC	8	20	42	1	11	24	4	16



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 36N, 122W

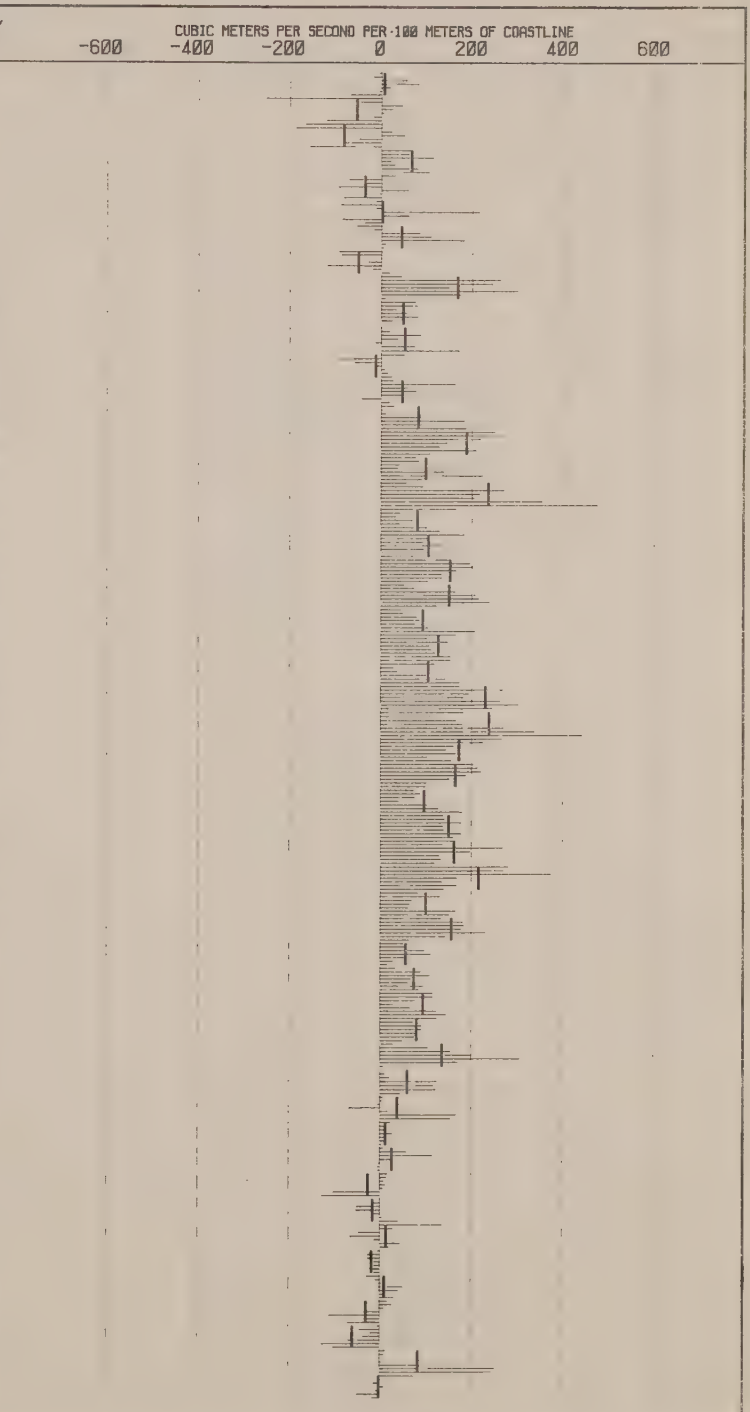
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	11	-19	-109	18	-10	-267	-239	-88
14 JAN	-58	15	91	2	-69	-21	-5	-15
21 JAN	17	-50	-42	-3	38	140	53	22
28 JAN	-47	-183	-34	-12	-133	3	-1	-58
4 FEB	-7	-14	-5	14	12	14	1	2
11 FEB	-13	-1	1	-62	-184	-208	-43	-73
18 FEB	-14	-19	5	30	16	35	-1	8
25 FEB	-9	-21	8	2	-9	-26	62	1
3 MAR	30	8	130	56	-5	65	161	64
10 MAR	138	-28	-71	-0	2	-16	75	14
17 MAR	155	219	49	-5	-51	-4	69	61
24 MAR	81	129	139	81	41	38	87	85
31 MAR	130	37	235	112	79	227	151	139
7 APR	119	48	15	32	87	169	36	72
14 APR	70	364	403	310	189	163	320	260
21 APR	276	89	115	266	280	135	82	178
28 APR	37	36	160	254	139	176	225	146
5 MAY	412	151	72	74	143	218	437	215
12 MAY	278	75	44	56	97	139	88	111
19 MAY	41	146	177	204	193	61	252	153
26 MAY	253	235	164	297	343	218	144	236
2 JUN	157	208	280	348	260	248	240	248
9 JUN	203	162	220	189	205	201	118	183
16 JUN	101	92	134	96	120	162	299	143
23 JUN	414	169	77	86	146	457	198	221
30 JUN	74	71	264	152	87	109	117	125
7 JUL	96	79	94	62	104	169	200	115
14 JUL	199	217	157	127	123	154	183	166
21 JUL	210	236	168	194	180	157	75	174
28 JUL	51	46	108	102	148	149	171	111
4 AUG	155	94	75	50	80	146	140	106
11 AUG	179	179	163	94	163	215	159	165
18 AUG	140	96	41	62	105	34	33	73
25 AUG	-4	32	91	118	11	9	50	44
1 SEP	115	195	108	22	59	85	73	94
8 SEP	128	109	140	124	97	141	109	121
15 SEP	144	25	21	120	344	198	80	133
22 SEP	48	1	16	32	36	84	94	44
29 SEP	29	10	52	69	22	65	149	57
6 OCT	115	154	37	38	38	1	14	57
13 OCT	96	109	132	60	35	104	94	73
20 OCT	50	53	94	10	-11	1	1	20
27 OCT	3	1	20	48	28	-39	-20	6
3 NOV	66	7	38	-6	37	27	65	33
10 NOV	18	8	169	203	-35	-22	-2	48
17 NOV	-26	5	-5	-16	-20	40	4	-3
24 NOV	146	161	90	4	-30	-9	49	59
1 DEC	150	50	-29	-6	25	-11	-61	17
8 DEC	-26	-153	-87	54	-36	-226	-118	-84
15 DEC	-97	90	99	94	123	78	-19	53
22 DEC	-203	-327	-102	59	122	-20	10	-66
29 DEC	50	-13	-66	-35	-33	-6	-18	-17



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 36N, 122W

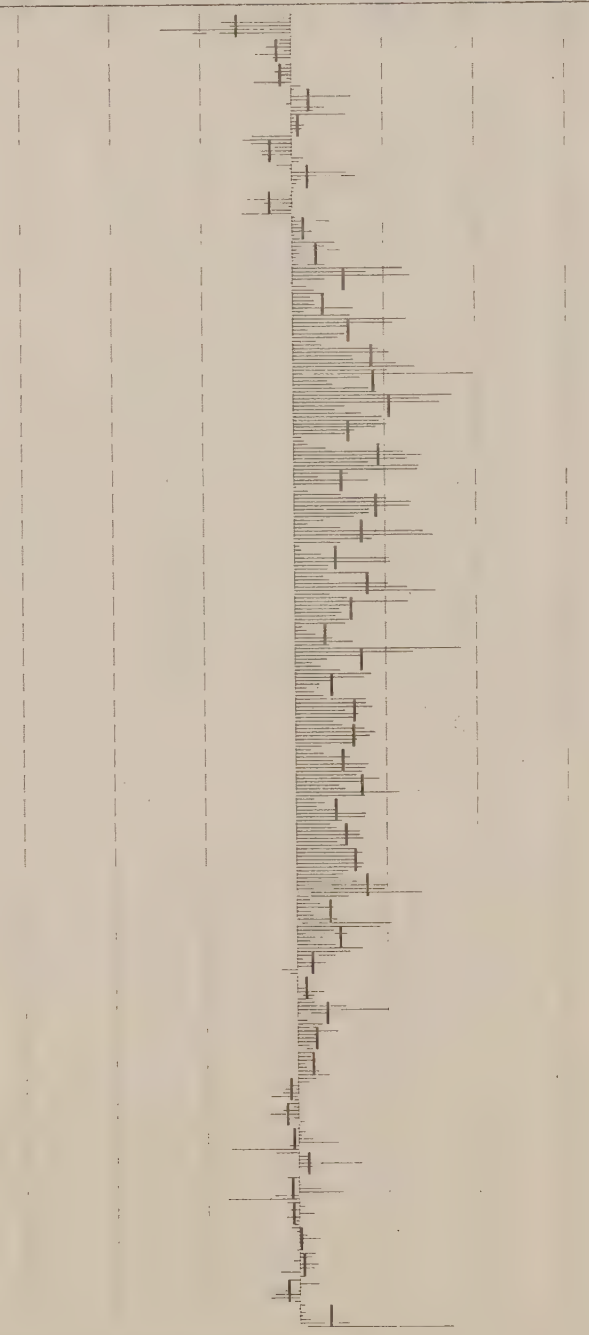
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-4	-25	56	82	18	-4	-70	0
12 JAN	-251	-45	47	26	3	-19	-123	-52
19 JAN	-166	-185	22	49	-47	-81	-156	-81
26 JAN	65	61	113	19	31	79	104	67
2 FEB	30	-70	-37	-130	58	-4	-81	-33
9 FEB	-12	-88	-13	214	61	-100	-37	4
16 FEB	-51	-17	83	108	181	8	4	45
23 FEB	-92	-86	-1	-28	-122	-19	19	-47
2 MAR	43	263	244	149	300	175	12	169
9 MAR	75	78	32	57	80	24	-0	49
16 MAR	-1	19	85	35	-12	74	173	53
23 MAR	51	-93	-57	-8	6	13	24	-9
30 MAR	25	161	60	77	42	-41	19	49
6 APR	27	3	9	87	181	93	185	84
13 APR	253	272	218	144	127	208	107	190
20 APR	75	83	43	37	139	227	92	99
27 APR	56	91	270	216	205	354	474	238
4 MAY	165	44	33	68	41	100	128	82
11 MAY	182	100	93	130	93	71	69	105
18 MAY	155	194	200	165	132	135	104	155
25 MAY	49	71	163	207	214	240	121	152
1 JUN	67	48	78	84	74	103	206	94
8 JUN	166	102	147	106	110	119	152	129
15 JUN	152	118	28	35	98	141	172	106
22 JUN	171	267	193	181	263	305	245	232
29 JUN	179	111	163	180	270	338	443	241
6 JUL	268	225	159	145	164	102	153	174
13 JUL	202	212	220	185	150	99	98	167
20 JUL	73	87	75	42	102	126	177	97
27 JUL	136	140	177	137	138	176	160	152
3 AUG	164	139	269	197	129	132	118	164
10 AUG	281	272	374	168	135	166	138	219
17 AUG	82	130	67	64	59	165	150	102
24 AUG	132	182	184	176	232	143	62	159
31 AUG	50	55	95	110	58	28	15	59
7 SEP	32	87	110	67	59	96	85	77
14 SEP	114	115	79	30	66	124	144	96
21 SEP	126	71	91	89	79	74	49	83
28 SEP	29	103	153	200	306	173	7	139
5 OCT	-0	10	20	124	116	121	44	62
12 OCT	6	3	-4	-68	17	166	154	39
19 OCT	23	8	10	27	12	11	2	13
26 OCT	7	57	113	24	-2	-4	-5	27
2 NOV	16	13	9	12	5	-103	-127	-25
9 NOV	-1	-19	-51	-53	-16	4	39	-14
16 NOV	137	28	-47	-64	-12	45	20	15
23 NOV	-4	-26	-26	-12	-11	-14	-12	-15
30 NOV	-29	-10	4	49	39	7	29	13
7 DEC	16	26	9	-35	-110	-35	-69	-28
14 DEC	-4	-44	-20	-37	-69	-128	-102	-58
21 DEC	12	8	0	1	80	252	245	85
28 DEC	75	3	-14	9	-8	-49	-17	-0



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970. AT 36N, 122W

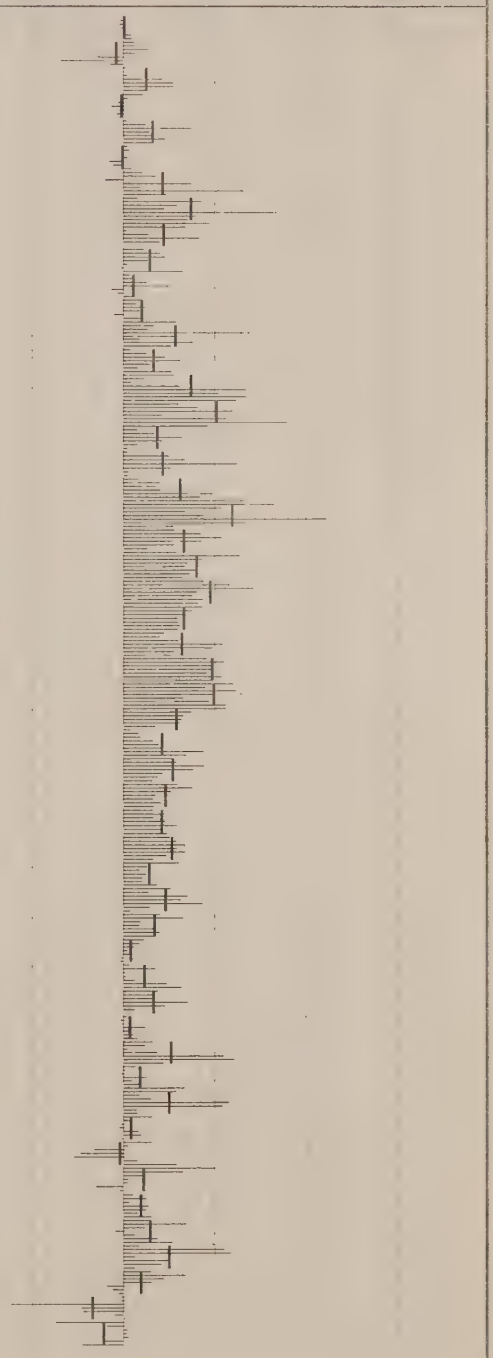
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	18	-49	-164	-133	-287	-214	2	-118
11 JAN	-22	-25	-54	-13	-70	-39	17	-30
18 JAN	-10	-21	-33	-22	-8	-80	20	-22
25 JAN	6	-1	130	39	-10	72	48	41
1 FEB	118	7	14	29	21	1	-85	15
8 FEB	-107	-88	-36	-71	-64	26	16	-46
15 FEB	-42	-4	122	141	24	11	4	37
22 FEB	5	-23	-103	-61	-5	-44	-110	-49
1 MAR	7	81	17	20	41	3	16	26
8 MAR	92	70	109	17	9	1	74	53
15 MAR	240	159	257	70	-2	31	46	114
22 MAR	61	38	46	48	132	24	125	68
29 MAR	248	217	117	31	111	98	49	125
5 APR	62	186	210	130	133	226	266	173
12 APR	207	396	146	73	85	164	182	179
19 APR	348	277	321	111	90	147	195	213
26 APR	187	204	180	135	112	15	21	122
3 MAY	30	71	240	283	252	164	273	188
10 MAY	271	118	53	163	102	5	29	106
17 MAY	103	202	257	251	163	163	130	181
24 MAY	63	30	100	283	304	170	100	150
31 MAY	10	14	58	211	211	75	73	93
7 JUN	162	61	75	205	245	309	77	162
14 JUN	114	248	118	96	102	88	118	126
21 JUN	109	16	25	43	79	126	73	67
28 JUN	364	258	149	70	36	55	98	147
5 JUL	165	150	77	53	24	39	60	81
12 JUL	153	154	167	108	138	126	82	133
19 JUL	103	150	174	162	134	131	56	130
26 JUL	32	60	118	80	157	151	145	106
2 AUG	131	181	145	93	108	226	149	148
9 AUG	98	62	44	85	153	151	101	90
16 AUG	73	90	138	138	145	87	110	112
23 AUG	126	143	131	127	147	143	113	133
30 AUG	104	94	132	200	192	277	113	159
6 SEP	27	51	81	32	35	88	211	75
13 SEP	184	79	110	56	27	86	144	98
20 SEP	117	83	11	64	29	-34	-15	36
27 SEP	1	-3	-0	31	58	37	34	22
4 OCT	37	105	201	63	0	20	54	69
11 OCT	37	88	38	45	38	27	32	43
18 OCT	36	29	35	17	18	51	68	36
25 OCT	39	26	-24	-42	-34	-60	-10	-15
1 NOV	-23	-15	-53	-61	-15	13	2	-22
8 NOV	-4	14	6	34	90	-34	-156	-7
15 NOV	-50	18	26	138	32	4	-1	24
22 NOV	-26	-3	5	50	100	-54	-156	-12
29 NOV	-26	14	-46	32	-28	-6	-7	-10
6 DEC	-17	-7	16	45	8	1	-6	6
13 DEC	34	28	-15	40	32	-42	5	12
20 DEC	-27	42	2	-43	-53	-65	-12	-22
27 DEC	11	-1	13	5	21	107	338	71



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 36N, 122W

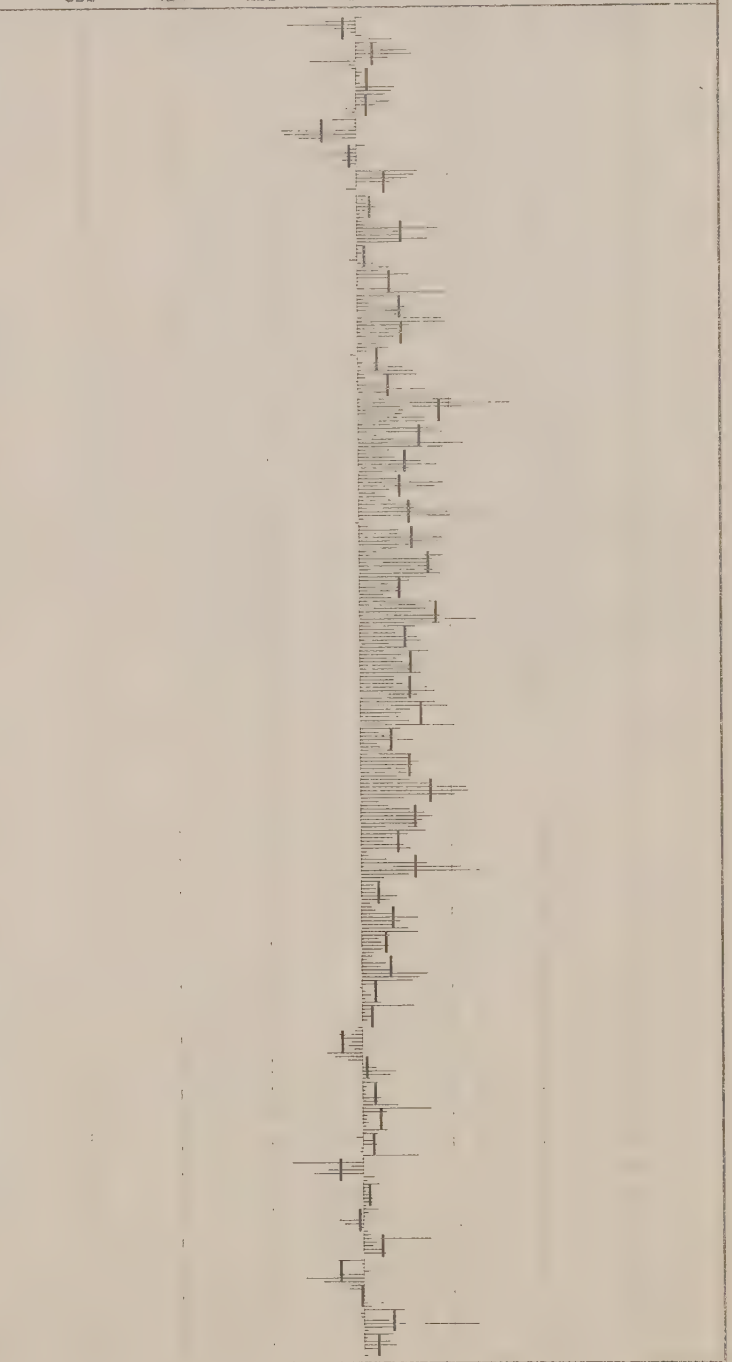
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	3	-6	-8	-3	4	15	18	3
10 JAN	22	26	55	25	-56	-137	-27	-13
17 JAN	4	-0	8	84	107	110	46	51
24 JAN	41	11	-12	-26	-8	-15	-9	-3
31 JAN	6	48	150	55	59	90	60	67
7 FEB	9	13	-2	9	-30	-21	16	-1
14 FEB	40	69	-41	148	37	262	93	87
21 FEB	31	172	118	89	330	160	142	150
28 FEB	190	134	6	54	167	79	0	90
7 MAR	44	82	93	58	7	-3	132	59
14 MAR	15	25	51	97	-27	-13	24	25
21 MAR	36	25	49	34	-20	54	114	42
28 MAR	65	53	277	122	36	149	103	115
4 APR	13	[illegible]	90	124	61	30	104	67
11 APR	111	46	16	125	269	209	272	150
18 APR	247	120	164	238	85	225	361	206
25 APR	185	31	67	130	85	29	9	76
2 MAY	9	99	136	248	101	10	9	87
9 MAY	35	78	72	79	194	165	263	127
16 MAY	330	213	136	176	444	268	107	239
23 MAY	110	168	213	170	113	52	116	135
30 MAY	253	173	140	134	157	145	130	162
6 JUN	174	233	284	161	151	174	163	191
13 JUN	173	150	136	117	120	123	118	134
20 JUN	88	78	122	218	195	111	103	131
27 JUN	181	221	190	195	182	214	191	196
4 JUL	239	178	246	194	130	186	224	200
11 JUL	223	147	129	127	124	69	14	119
18 JUL	31	37	63	77	84	173	137	86
25 JUL	111	113	175	152	83	73	62	110
1 AUG	117	150	105	70	63	80	66	93
8 AUG	64	87	64	90	116	85	96	86
15 AUG	100	114	133	117	135	91	65	108
22 AUG	120	49	33	49	40	41	73	58
29 AUG	101	55	140	125	173	56	14	95
5 SEP	82	131	35	34	64	78	67	70
12 SEP	45	35	24	8	17	-5	-5	17
19 SEP	12	67	3	3	27	93	125	47
26 SEP	74	66	69	139	89	25	19	69
3 OCT	6	-6	-2	46	13	21	30	15
10 OCT	63	45	9	73	219	242	85	105
17 OCT	29	2	-4	52	18	38	133	38
24 OCT	113	33	60	230	216	28	31	102
31 OCT	62	13	-3	-9	32	38	-3	19
7 NOV	64	10	-63	-84	-107	30	115	-7
14 NOV	199	129	46	11	8	-60	-9	46
21 NOV	21	50	13	54	48	31	61	40
28 NOV	58	136	46	-19	24	73	107	61
5 DEC	31	220	237	25	95	82	24	102
12 DEC	59	137	88	61	-35	-23	-9	40
19 DEC	-4	-4	-259	-93	-88	-20	2	-67
26 DEC	-148	-36	8	6	11	-46	-90	-42



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1972 AT 36N, 122W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	15	-67	-150	-69	-12	14	80	-27
9 JAN	48	59	113	125	70	-90	-48	38
16 JAN	-9	14	8	0	8	84	78	26
23 JAN	66	21	75	66	-23	-14	-25	24
30 JAN	-53	-5	-9	-164	-159	-125	-2	-74
6 FEB	20	-11	-63	-34	-31	-15	29	-15
13 FEB	136	126	113	76	1	-22	-2	61
20 FEB	26	15	23	43	61	22	19	30
27 FEB	14	46	179	90	101	156	95	97
5 MAR	18	38	11	-11	-43	36	70	17
12 MAR	47	115	60	4	-2	73	192	71
19 MAR	91	52	27	103	100	65	185	94
26 MAR	193	116	91	121	79	37	44	97
2 APR	69	23	-16	-23	46	97	122	45
9 APR	129	22	-5	66	151	60	49	69
16 APR	206	535	230	99	100	148	147	181
23 APR	73	155	183	40	80	233	183	136
30 APR	69	62	82	138	173	119	84	104
7 MAY	42	84	186	168	68	36	63	92
14 MAY	71	119	124	196	273	10	-8	112
21 MAY	23	87	158	183	175	111	87	118
28 MAY	86	186	162	153	155	162	178	155
4 JUN	150	110	63	87	96	53	70	90
11 JUN	160	125	146	155	177	256	177	171
18 JUN	122	77	78	126	137	67	107	102
25 JUN	150	94	82	95	130	110	134	114
2 JUL	78	73	93	148	164	126	104	112
9 JUL	164	192	110	92	84	108	207	137
16 JUL	88	43	79	116	38	42	80	69
23 JUL	112	110	130	114	99	117	83	109
30 JUL	110	157	232	239	208	98	42	155
6 AUG	63	108	140	158	134	124	124	122
13 AUG	141	105	70	50	93	111	13	83
20 AUG	18	56	144	219	261	103	51	122
27 AUG	33	26	32	31	79	64	17	40
3 SEP	22	30	75	124	85	70	101	72
10 SEP	124	61	38	42	60	46	27	57
17 SEP	22	11	52	42	60	146	128	66
24 SEP	112	33	-3	9	21	6	44	32
1 OCT	114	27	7	22	11	3	-14	24
8 OCT	-17	-50	-44	-24	-30	-46	-78	-41
15 OCT	-59	-31	-3	29	75	59	15	12
22 OCT	33	8	5	7	41	33	77	29
29 OCT	151	52	7	8	15	7	55	42
5 NOV	34	-15	23	30	-3	-7	122	26
12 NOV	-2	-156	-26	-78	-107	23	9	-48
19 NOV	35	12	4	14	19	18	4	15
26 NOV	34	12	3	-53	-41	-8	8	-7
3 DEC	20	149	28	20	42	48	3	44
10 DEC	-61	-5	-1	16	-54	-147	-88	-48
17 DEC	-46	-32	0	1	-1	41	15	-3
24 DEC	90	-8	-12	54	255	62	29	67
31 DEC	67	7	57	70	33	1	8	35



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

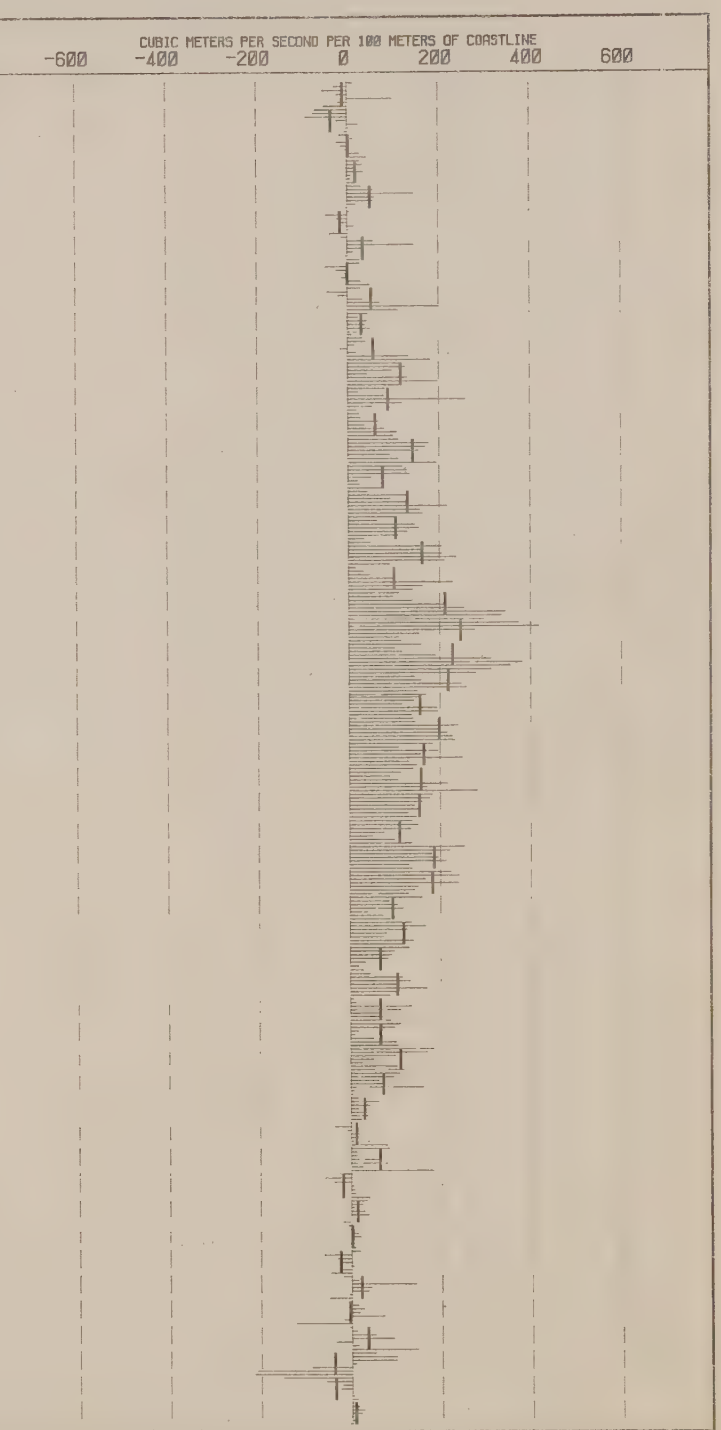
DURING 1973 AT 36N, 122W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-15	-227	-62	-28	-37	-5	-16	-56
14 JAN	-30	-64	-47	-131	-40	166	27	-18
21 JAN	19	-6	-24	-7	64	24	-81	-2
28 JAN	-102	-75	32	25	-30	-117	-172	-63
4 FEB	-97	-152	-122	-7	-2	-90	-69	-77
11 FEB	41	-30	-7	32	56	32	48	25
18 FEB	19	-10	-9	-2	-9	-219	-135	-52
25 FEB	-50	-49	-119	29	46	39	33	-10
4 MAR	59	5	16	25	67	90	87	50
11 MAR	101	121	386	125	17	35	103	127
18 MAR	30	-0	100	36	115	45	27	50
25 MAR	33	130	234	353	139	34	131	151
1 APR	272	161	43	21	57	166	81	114
8 APR	7	1	44	61	115	78	137	63
15 APR	59	63	322	337	326	206	70	198
22 APR	113	222	127	56	85	198	264	152
29 APR	201	219	88	86	165	244	214	174
6 MAY	169	196	142	149	108	78	112	139
13 MAY	89	56	60	104	118	191	235	122
20 MAY	205	207	202	152	75	188	98	161
27 MAY	85	53	143	238	156	85	142	129
3 JUN	187	103	58	77	124	93	241	126
10 JUN	304	215	139	260	238	183	170	216
17 JUN	222	177	91	33	58	147	121	121
24 JUN	121	94	78	113	168	204	243	146
1 JUL	159	137	157	144	257	289	203	192
8 JUL	160	145	263	323	192	129	89	186
15 JUL	98	114	131	175	145	94	164	132
22 JUL	250	236	143	115	85	68	74	139
29 JUL	110	106	103	173	143	128	108	124
5 AUG	62	94	99	118	161	135	183	122
12 AUG	176	108	113	138	152	189	135	144
19 AUG	118	140	202	199	196	143	142	163
26 AUG	88	90	67	56	120	192	86	100
2 SEP	25	50	88	73	146	228	87	99
9 SEP	18	18	44	77	106	88	100	64
16 SEP	76	53	65	33	90	101	61	69
23 SEP	105	103	71	-4	-5	19	71	51
30 SEP	112	138	116	53	40	79	56	85
7 OCT	25	46	60	43	52	21	9	36
14 OCT	22	53	14	8	7	9	-2	16
21 OCT	-12	-87	47	55	81	39	0	18
28 OCT	83	65	-3	54	133	84	50	67
4 NOV	2	-36	-9	4	-9	-46	-86	-25
11 NOV	-84	9	20	3	-5	-14	-28	-14
18 NOV	165	112	53	66	15	36	134	83
25 NOV	119	52	-9	-13	-17	-184	34	-3
2 DEC	44	22	0	-19	-33	-9	-7	-0
9 DEC	-22	-49	-21	-16	6	2	-41	-20
16 DEC	-19	33	-1	-56	-96	-33	50	-17
23 DEC	46	20	40	8	13	30	94	37

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 33N, 119W

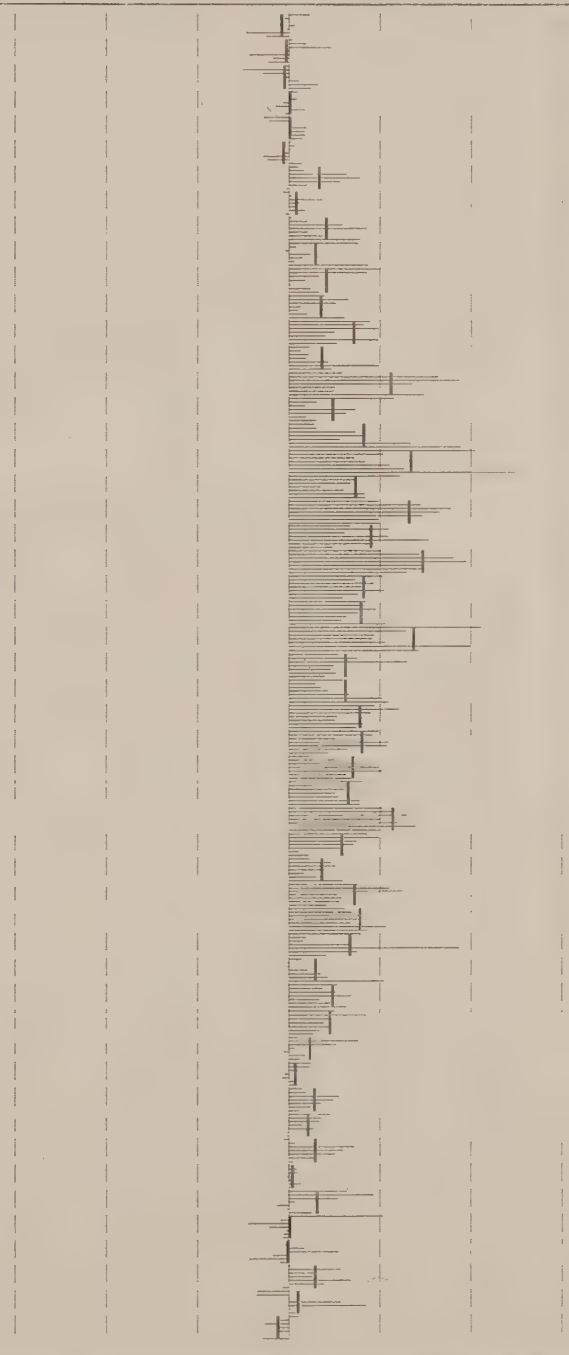
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	12	-29	-53	-22	99	-17	-51	-9
8 JAN	-71	-74	-90	-22	23	3	-4	-33
15 JAN	-16	13	-21	-11	-2	26	41	4
22 JAN	26	32	14	34	8	6	14	19
29 JAN	90	55	145	60	56	17	-2	51
5 FEB	3	-46	-21	-13	13	3	-98	-14
12 FEB	-13	55	145	34	13	-2	27	37
19 FEB	26	-47	-24	-5	-11	28	49	2
26 FEB	28	-44	-21	32	70	199	110	53
5 MAR	43	23	42	39	50	19	8	32
12 MAR	91	39	15	-15	10	139	179	57
19 MAR	116	126	96	42	131	196	116	118
26 MAR	80	22	78	258	117	51	10	89
2 APR	24	29	67	36	78	107	98	63
9 APR	110	176	168	154	92	110	194	143
16 APR	118	128	134	50	19	25	75	79
23 APR	44	126	91	130	217	155	162	132
30 APR	104	62	147	154	129	108	94	105
7 MAY	47	204	165	203	237	209	89	165
14 MAY	13	31	47	96	228	162	141	103
21 MAY	110	98	141	215	253	345	394	214
28 MAY	300	371	417	275	153	110	113	249
4 JUN	159	100	116	190	312	360	354	230
11 JUN	311	277	143	157	247	258	150	221
18 JUN	168	156	142	116	193	195	136	158
25 JUN	199	147	241	196	214	226	233	199
2 JUL	181	108	195	157	248	130	148	167
9 JUL	140	112	89	106	216	170	281	159
16 JUL	181	175	161	143	156	131	146	156
23 JUL	139	151	135	77	51	98	137	113
30 JUL	251	221	180	194	212	129	135	189
6 AUG	221	239	166	241	149	143	128	184
13 AUG	159	87	103	119	38	73	89	95
20 AUG	133	166	127	80	77	138	117	120
27 AUG	130	96	91	81	32	18	28	68
3 SEP	43	114	131	101	167	99	86	106
10 SEP	6	12	134	109	61	70	89	69
17 SEP	109	97	16	8	49	99	104	69
24 SEP	185	171	98	51	53	102	121	112
1 OCT	108	94	61	68	160	27	4	75
8 OCT	16	63	44	17	34	36	21	33
15 OCT	-20	-39	-7	21	17	40	80	13
22 OCT	83	12	15	65	79	27	184	66
29 OCT	-26	-108	-37	5	7	8	40	-16
5 NOV	37	26	6	30	37	0	-18	17
12 NOV	-7	-2	13	19	1	-3	8	4
19 NOV	19	-60	-30	-26	5	-22	-45	-23
26 NOV	-17	14	142	41	96	-5	-49	23
3 DEC	-6	15	25	15	71	-17	-123	-3
10 DEC	-5	11	52	91	-35	13	145	39
17 DEC	51	98	97	8	-88	-208	-213	-36
24 DEC	-149	-56	-21	-24	0	2	11	-34
31 DEC	1	15	25	20	-1	8	-3	9



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 33N, 119W

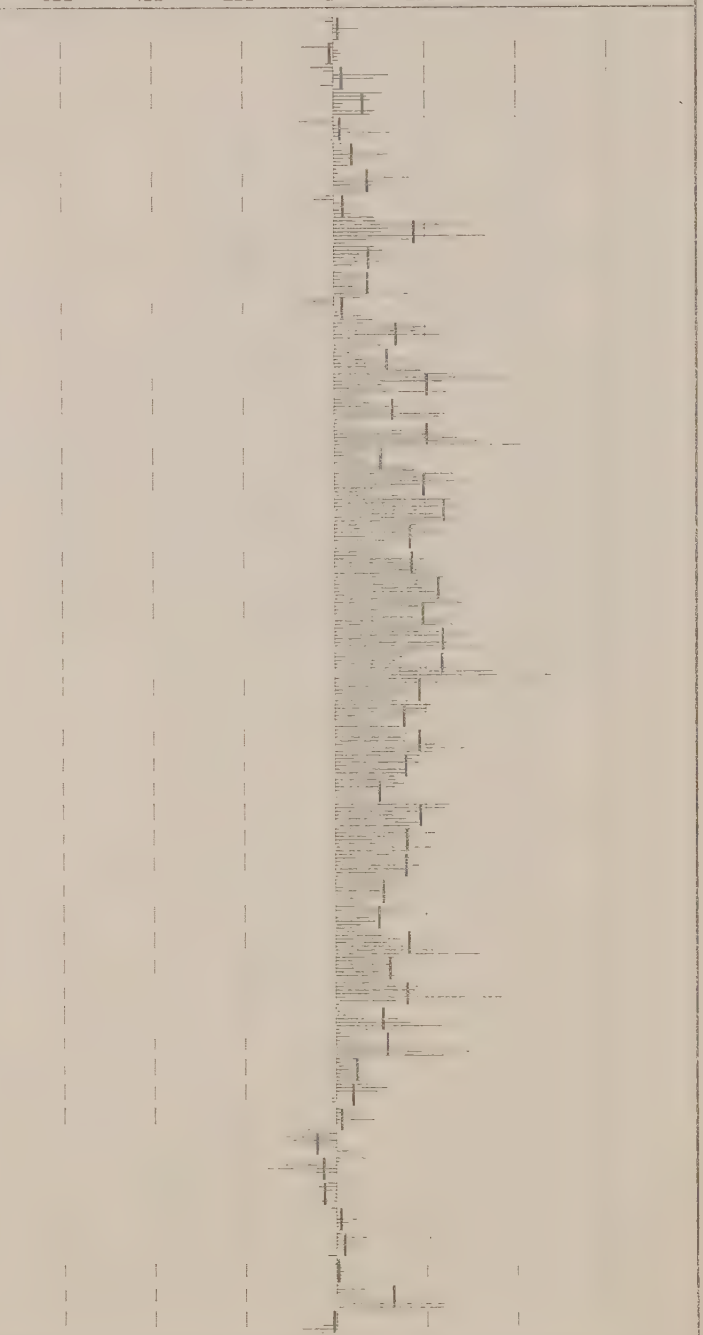
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	45	-7	-1	12	-1	-91	-48	-13
14 JAN	6	36	91	-4	-86	-34	-45	-5
21 JAN	-11	-101	-56	-12	20	62	46	-8
28 JAN	18	-1	16	-11	-28	33	-6	3
4 FEB	-54	-43	-1	35	32	34	29	5
11 FEB	3	10	1	-10	-57	-46	26	-10
18 FEB	19	32	123	154	109	38	-4	67
25 FEB	-11	5	73	20	12	33	-7	18
3 MAR	4	37	115	168	40	74	153	85
10 MAR	149	14	-6	45	27	11	173	59
17 MAR	201	170	64	34	2	45	65	83
24 MAR	76	127	102	24	17	38	120	72
31 MAR	176	161	196	97	79	194	104	144
7 APR	44	24	42	36	84	196	92	74
14 APR	117	325	375	270	101	96	296	226
21 APR	230	60	35	143	124	36	59	98
28 APR	54	58	143	162	109	266	375	167
5 MAY	407	206	143	167	220	251	498	270
12 MAY	243	143	134	69	119	163	166	148
19 MAY	196	288	355	330	291	196	199	265
26 MAY	133	217	120	216	306	184	93	181
2 JUN	201	286	360	369	293	291	258	297
9 JUN	204	144	184	158	208	150	115	166
16 JUN	167	162	187	151	125	114	209	159
23 JUN	421	256	186	182	210	399	285	277
30 JUN	106	148	259	97	91	102	77	126
7 JUL	117	57	68	85	129	205	217	125
14 JUL	185	239	178	103	99	159	146	159
21 JUL	195	183	101	218	214	130	89	161
28 JUL	46	100	177	197	203	124	142	141
4 AUG	163	128	119	101	110	154	153	132
11 AUG	203	226	265	199	238	277	201	230
18 AUG	171	197	146	140	110	20	42	118
25 AUG	44	89	100	76	92	58	116	74
1 SEP	148	221	250	104	114	110	81	147
8 SEP	124	137	158	169	197	211	173	159
15 SEP	155	36	90	136	373	147	60	137
22 SEP	25	-3	-3	39	67	85	209	60
29 SEP	104	71	100	136	65	91	124	99
6 OCT	98	171	85	76	90	65	52	91
13 OCT	27	152	102	10	-9	34	22	48
20 OCT	46	44	18	-9	-15	9	11	15
27 OCT	28	36	109	95	70	46	21	58
3 NOV	90	72	65	27	53	-1	-2	43
10 NOV	-10	13	143	119	99	55	9	61
17 NOV	-0	16	19	-3	3	25	3	9
24 NOV	126	185	108	12	-27	-2	48	64
1 DEC	205	-19	-89	-42	-5	-10	-12	4
8 DEC	-3	-7	32	106	-34	-65	-17	-1
15 DEC	3	113	55	51	135	76	-11	60
22 DEC	-69	-71	-1	113	169	2	13	22
29 DEC	19	-19	-51	-27	-20	1	-55	-22



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 33N, 119W

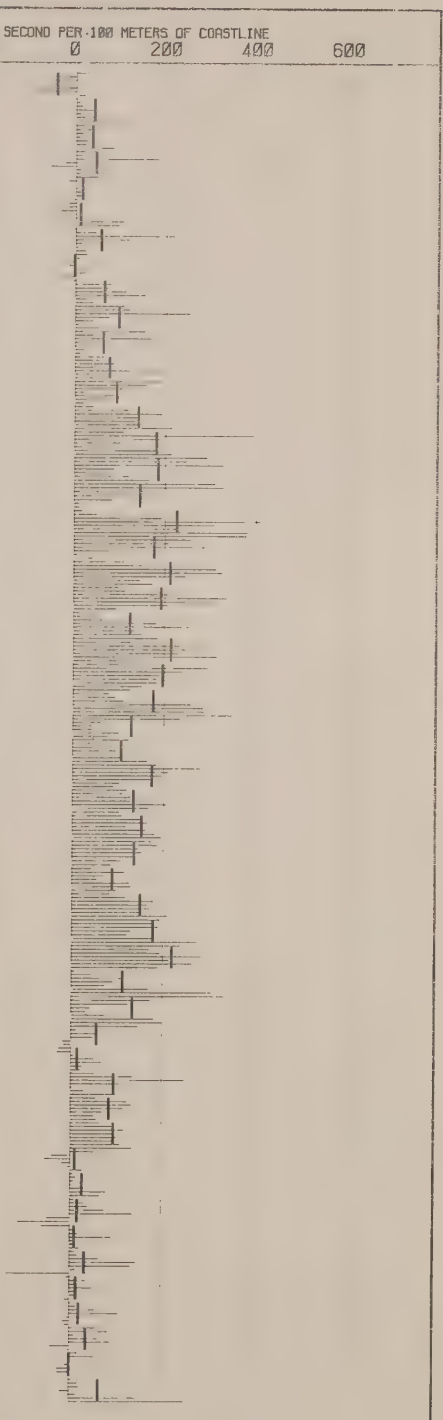
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-23	-15	29	59	10	9	11	12
12 JAN	-4	-68	10	16	9	9	-10	-6
19 JAN	-47	-19	119	80	-2	-26	24	19
26 JAN	106	72	79	21	15	90	81	66
2 FEB	-6	-77	14	45	124	13	-6	15
9 FEB	19	2	21	123	86	17	33	43
16 FEB	7	10	167	103	98	62	87	76
23 FEB	-10	-44	38	26	11	56	92	23
2 MAR	92	312	200	107	335	167	37	178
9 MAR	92	100	56	115	124	46	10	79
16 MAR	42	70	84	39	41	77	160	76
23 MAR	59	-73	-57	6	34	61	104	19
30 MAR	91	203	192	234	96	42	113	139
6 APR	93	34	64	160	173	119	190	119
13 APR	304	302	240	166	117	246	51	207
20 APR	40	81	161	107	250	230	43	130
27 APR	8	47	168	228	271	312	412	207
4 MAY	140	35	41	105	66	168	175	104
11 MAY	264	210	260	250	148	83	142	198
18 MAY	258	243	267	183	231	263	242	241
25 MAY	181	222	236	192	110	110	126	168
1 JUN	93	90	195	198	187	180	252	172
8 JUN	242	191	221	192	266	223	271	230
15 JUN	282	193	95	119	178	244	259	196
22 JUN	194	248	311	132	246	341	209	240
29 JUN	149	149	140	147	256	349	477	238
6 JUL	322	235	155	153	160	130	159	188
13 JUL	213	201	199	143	65	110	141	153
20 JUL	136	160	143	154	220	285	215	188
27 JUL	187	171	185	128	158	155	129	159
3 AUG	135	153	132	93	62	61	65	100
10 AUG	255	241	191	143	157	184	164	191
17 AUG	164	220	162	82	103	210	173	159
24 AUG	121	161	191	185	162	159	128	158
31 AUG	126	142	105	101	121	104	54	107
7 SEP	83	136	201	73	86	56	56	99
14 SEP	97	111	143	114	147	214	317	163
21 SEP	187	85	118	120	104	131	113	122
28 SEP	83	190	174	168	364	131	6	160
5 OCT	1	20	47	137	166	249	127	107
12 OCT	12	32	101	48	89	295	295	116
19 OCT	52	53	40	30	53	53	57	48
26 OCT	91	112	89	2	-11	-9	10	40
2 NOV	9	16	42	84	26	-1	-77	14
9 NOV	-77	-113	-96	-63	-9	33	47	-40
16 NOV	84	6	-129	-153	-46	34	17	-27
23 NOV	-20	-40	-34	-7	-22	-31	-8	-23
30 NOV	-12	-1	4	47	28	9	11	12
7 DEC	11	67	68	18	-3	-1	-21	20
14 DEC	-0	-4	7	15	8	7	8	6
21 DEC	78	71	69	50	103	267	240	128
28 DEC	117	2	-12	2	-31	-77	-33	-5



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 33N, 119W

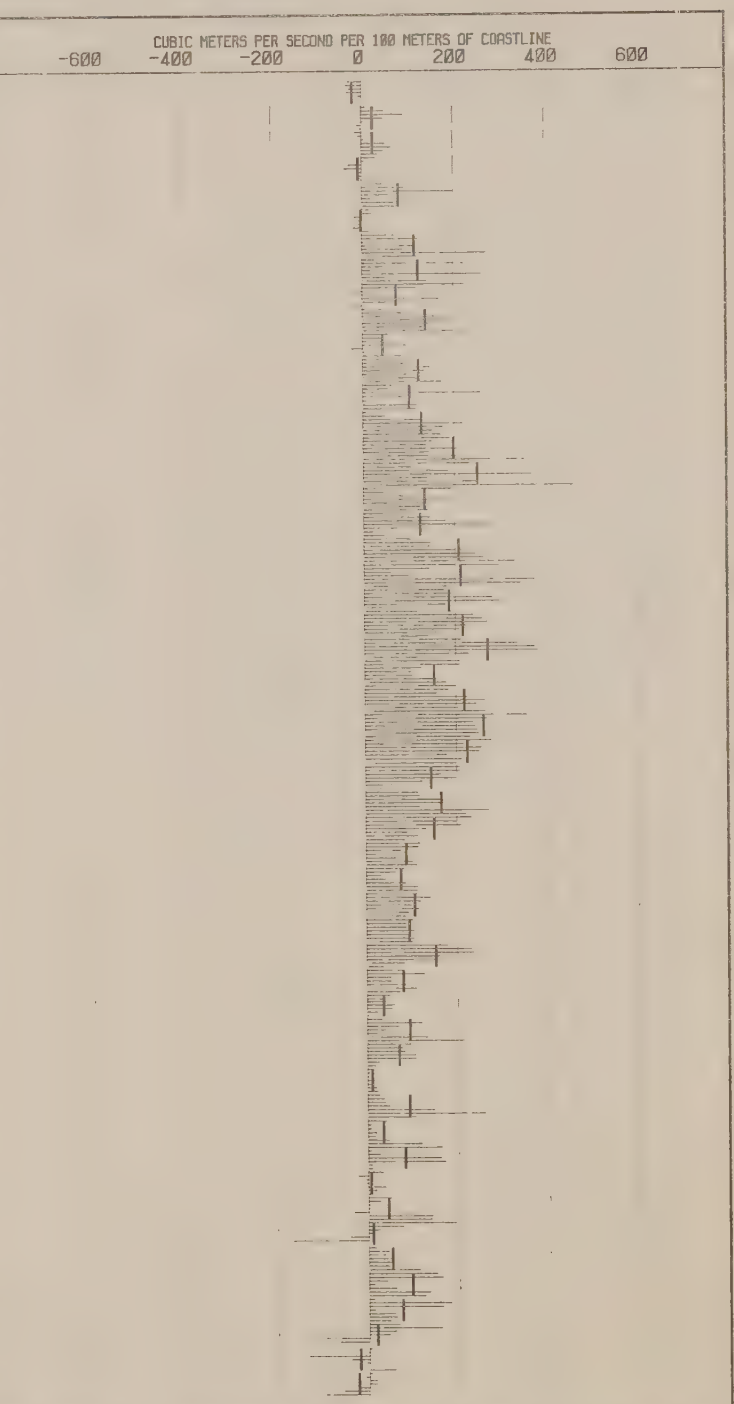
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	28	-46	-70	-50	-82	-78	17	-40
11 JAN	-2	9	18	47	28	63	134	43
18 JAN	34	46	29	23	27	20	82	37
25 JAN	46	31	182	-22	-56	75	61	45
1 FEB	89	-16	-1	17	23	9	-3	17
8 FEB	-25	-59	-32	-0	5	103	93	12
15 FEB	-6	45	216	115	12	5	22	59
22 FEB	23	8	-21	-13	16	27	-44	-1
1 MAR	-4	78	69	110	151	26	39	67
8 MAR	107	149	252	73	37	5	60	98
15 MAR	155	38	167	44	1	26	14	64
22 MAR	63	61	84	48	192	31	68	78
29 MAR	190	158	105	23	86	73	19	93
5 APR	41	118	190	140	133	154	214	142
12 APR	106	393	185	106	81	103	212	181
19 APR	291	248	327	87	66	119	165	186
26 APR	311	328	168	109	82	12	10	146
3 MAY	15	49	189	410	311	236	369	228
10 MAY	377	259	207	285	77	6	41	179
17 MAY	118	192	311	325	244	144	171	215
24 MAY	98	113	205	338	311	266	91	194
31 MAY	58	47	62	179	252	136	151	126
7 JUN	183	123	246	290	232	316	124	216
14 JUN	146	299	243	191	182	182	150	199
21 JUN	124	78	92	110	261	284	297	178
28 JUN	348	233	60	43	42	100	77	129
5 JUL	122	96	123	94	57	183	162	108
12 JUL	183	281	208	195	172	101	87	175
19 JUL	119	109	125	128	205	166	102	136
26 JUL	108	147	165	117	159	180	195	153
2 AUG	159	189	143	152	136	108	84	139
9 AUG	41	114	71	55	125	127	97	90
16 AUG	82	116	178	164	173	149	208	153
23 AUG	193	181	188	128	121	178	276	180
30 AUG	238	169	194	285	214	264	189	222
6 SEP	6	44	110	90	72	168	305	114
13 SEP	337	173	124	40	29	75	180	137
20 SEP	197	146	10	52	50	-18	-29	58
27 SEP	-25	-29	6	50	65	25	20	16
4 OCT	55	134	248	109	1	28	98	96
11 OCT	54	122	133	114	67	50	57	85
18 OCT	66	94	117	98	100	93	103	96
25 OCT	133	52	-44	-55	-18	-3	26	13
1 NOV	6	11	6	2	27	78	64	28
8 NOV	7	32	37	74	137	-49	-113	18
15 NOV	-62	7	16	90	7	6	20	12
22 NOV	12	16	63	144	132	13	-141	34
29 NOV	-6	34	16	48	11	15	-11	15
6 DEC	2	15	54	105	-5	-13	-11	21
13 DEC	65	83	10	63	90	-43	-1	38
20 DEC	17	53	1	-7	-27	-25	2	2
27 DEC	27	17	22	-19	14	149	253	66



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 33N, 119W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	-30	-34	-31	-32	-6	0	11	-17
10 JAN	8	47	89	47	3	-7	-2	26
17 JAN	-13	-8	5	51	64	47	34	26
24 JAN	29	4	-20	-38	-11	-3	-1	-7
31 JAN	44	95	200	66	22	70	78	82
7 FEB	16	33	-16	-8	-18	-19	17	1
14 FEB	71	125	25	110	90	273	120	116
21 FEB	26	222	107	62	269	51	141	125
28 FEB	224	120	-45	23	167	65	-24	76
7 MAR	44	67	158	193	146	129	225	140
14 MAR	56	45	54	99	-27	3	85	45
21 MAR	94	90	147	136	96	128	173	123
28 MAR	60	68	257	88	11	121	117	103
4 APR	7	50	130	218	175	155	171	129
11 APR	191	150	150	208	140	209	359	201
18 APR	233	106	187	369	141	262	461	251
25 APR	195	60	111	183	130	125	142	135
2 MAY	86	146	179	274	121	20	49	125
9 MAY	116	146	144	216	246	269	392	209
16 MAY	297	145	59	100	374	344	179	214
23 MAY	173	192	283	293	178	82	115	169
30 MAY	237	257	269	222	211	177	147	217
6 JUN	212	337	371	383	227	100	209	272
13 JUN	211	127	102	107	156	178	200	154
20 JUN	184	155	225	263	244	206	266	221
27 JUN	354	271	238	241	247	251	231	262
4 JUL	275	215	254	251	177	212	200	226
11 JUL	209	208	166	198	125	79	41	146
18 JUL	114	119	165	161	120	272	222	168
25 JUL	231	198	210	132	90	117	84	152
1 AUG	119	114	75	45	65	105	113	91
8 AUG	82	67	34	42	87	115	114	77
15 AUG	111	139	118	100	114	92	84	108
22 AUG	99	89	85	106	94	106	99	97
29 AUG	180	234	236	162	153	81	36	155
5 SEP	80	126	52	51	85	108	72	82
12 SEP	53	33	41	63	57	22	2	39
19 SEP	31	120	71	54	47	132	213	95
26 SEP	94	76	82	106	107	27	18	73
3 OCT	12	5	-0	15	9	20	24	12
10 OCT	26	37	41	48	146	257	103	94
17 OCT	43	6	5	18	19	47	118	36
24 OCT	162	51	25	160	170	9	7	83
31 OCT	33	-22	-4	-6	30	18	3	8
7 NOV	49	26	3	1	-32	141	138	47
14 NOV	193	77	26	11	-40	-102	-1	12
21 NOV	18	45	36	70	50	45	112	54
28 NOV	150	161	42	11	60	134	123	97
5 DEC	12	179	161	12	60	62	46	76
12 DEC	69	161	61	43	-118	-71	1	21
19 DEC	3	-2	-137	-39	-7	-2	59	-18
26 DEC	5	-8	16	18	-26	-56	-96	-21



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

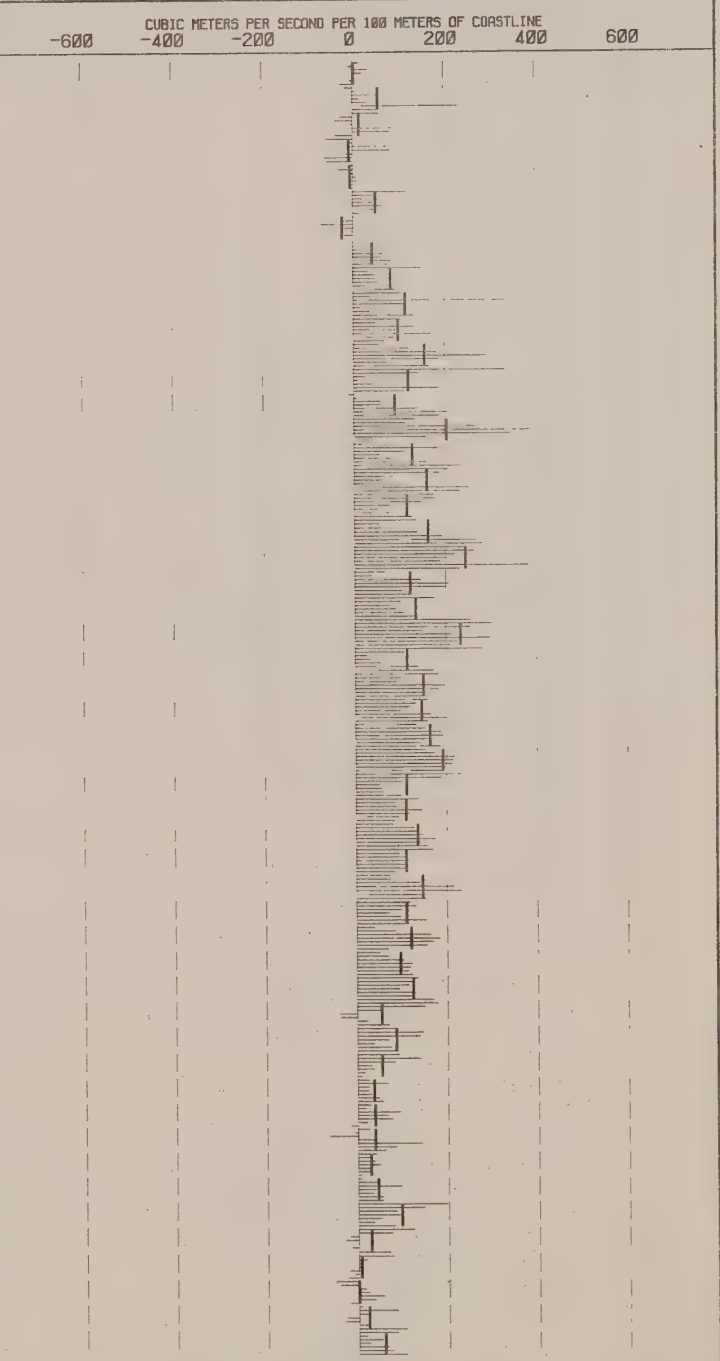
DURING 1972 AT 33N, 119W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	-8	-86	-250	-75	-25	2	77	-52
9 JAN	34	18	18	45	8	-76	-51	-1
16 JAN	4	22	12	14	31	137	92	44
23 JAN	94	42	54	95	-4	-6	-46	33
30 JAN	-57	-5	7	-86	-98	-1	48	-27
6 FEB	42	6	-6	-7	-38	-43	3	-6
13 FEB	60	97	69	54	6	9	38	47
20 FEB	60	76	103	119	120	83	39	86
27 FEB	39	106	274	76	120	179	48	120
5 MAR	-0	66	59	26	41	138	149	68
12 MAR	93	130	59	5	25	129	185	90
19 MAR	80	78	95	239	145	56	223	130
26 MAR	289	153	81	149	44	43	126	126
2 APR	151	94	53	76	162	160	221	131
9 APR	225	113	60	183	192	45	40	122
16 APR	129	309	268	98	77	106	133	160
23 APR	188	292	157	13	41	139	172	143
30 APR	53	95	97	177	264	227	202	159
7 MAY	152	157	260	168	78	52	62	133
14 MAY	74	146	178	210	343	72	16	148
21 MAY	81	129	188	229	191	114	56	141
28 MAY	84	108	68	97	119	146	187	115
4 JUN	133	74	48	80	167	154	188	121
11 JUN	196	127	142	139	178	215	219	174
18 JUN	197	132	122	153	200	144	194	163
25 JUN	188	137	142	145	113	161	243	161
2 JUL	205	148	145	143	145	116	124	147
9 JUL	174	154	113	86	123	154	188	142
16 JUL	125	86	117	194	108	108	128	124
23 JUL	159	122	130	134	121	78	72	117
30 JUL	110	133	211	244	165	88	58	143
6 AUG	85	122	179	128	80	91	82	110
13 AUG	118	161	152	151	133	160	67	135
20 AUG	65	78	129	220	255	131	88	138
27 AUG	54	33	3	12	63	69	44	40
3 SEP	48	45	57	170	118	69	109	88
10 SEP	133	98	85	87	101	98	92	99
17 SEP	92	52	79	39	51	118	131	80
24 SEP	119	81	42	44	60	39	91	68
1 OCT	203	57	21	42	-14	5	16	47
8 OCT	16	17	6	2	3	6	2	8
15 OCT	6	9	10	11	86	71	15	30
22 OCT	20	8	20	15	17	20	46	21
29 OCT	123	51	7	14	26	27	96	49
5 NOV	65	-1	45	90	10	53	175	63
12 NOV	24	-4	20	-1	-2	20	17	10
19 NOV	61	21	-7	-10	20	16	-33	10
26 NOV	-5	-21	-10	-105	-69	-21	23	-31
3 DEC	50	206	37	32	51	47	8	63
10 DEC	-12	-12	-0	47	-22	-44	-6	-7
17 DEC	0	3	21	11	8	50	25	17
24 DEC	50	-135	-73	12	213	62	6	19
31 DEC	49	17	39	75	29	-7	12	30

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 33N, 119W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	12	-9	31	20	0	-5	-26	3
14 JAN	-17	4	54	14	35	233	78	57
21 JAN	58	-27	-38	-9	86	82	-39	17
28 JAN	-58	-5	77	81	-14	-63	-56	-5
4 FEB	-3	-30	-3	5	10	-1	-8	-4
11 FEB	117	44	20	43	67	51	16	51
18 FEB	2	-27	-71	-27	-1	-27	-3	-22
25 FEB	-0	-0	11	65	73	82	78	44
4 MAR	147	34	45	90	76	106	92	84
11 MAR	105	64	338	117	16	36	133	116
18 MAR	101	53	132	91	169	88	67	100
25 MAR	58	122	182	306	189	91	165	159
1 APR	332	144	25	8	45	188	113	122
8 APR	-10	6	58	62	143	204	188	93
15 APR	134	112	267	388	345	158	36	206
22 APR	77	186	114	56	80	158	236	130
29 APR	211	185	87	61	105	252	232	162
6 MAY	174	177	145	77	50	76	126	118
13 MAY	137	55	59	138	192	292	280	165
20 MAY	239	261	220	204	188	381	230	246
27 MAY	65	37	144	206	199	107	117	125
3 JUN	173	102	79	90	107	139	256	135
10 JUN	299	252	149	213	296	226	209	235
17 JUN	282	109	25	32	56	138	172	116
24 JUN	182	101	90	195	183	149	158	151
1 JUL	159	133	119	97	165	203	158	148
8 JUL	132	153	188	181	171	143	185	166
15 JUL	156	174	216	214	213	196	194	195
22 JUL	230	189	103	51	56	64	98	113
29 JUL	141	117	89	144	117	94	83	112
5 AUG	81	126	133	150	173	143	157	138
12 AUG	169	94	107	114	107	106	84	112
19 AUG	74	74	141	215	231	143	152	147
26 AUG	116	130	98	73	97	153	114	112
2 SEP	30	84	163	102	168	154	68	122
9 SEP	50	69	102	119	115	112	122	98
16 SEP	134	123	115	92	123	123	168	125
23 SEP	175	148	55	-37	-36	23	70	57
30 SEP	82	144	135	67	37	73	83	89
7 OCT	91	137	81	31	37	13	7	57
14 OCT	24	67	24	23	90	45	56	38
21 OCT	28	17	91	67	76	21	-14	41
28 OCT	25	-6	-61	35	141	83	60	40
4 NOV	39	25	35	48	28	23	6	29
11 NOV	5	46	94	38	92	54	54	46
18 NOV	196	146	84	93	52	34	80	98
25 NOV	121	74	-19	-28	1	-14	68	29
2 DEC	76	18	5	2	-20	-9	-22	7
9 DEC	-50	-40	14	22	54	36	-19	3
16 DEC	6	83	19	-27	-31	18	105	25
23 DEC	85	16	52	24	63	74	103	60



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

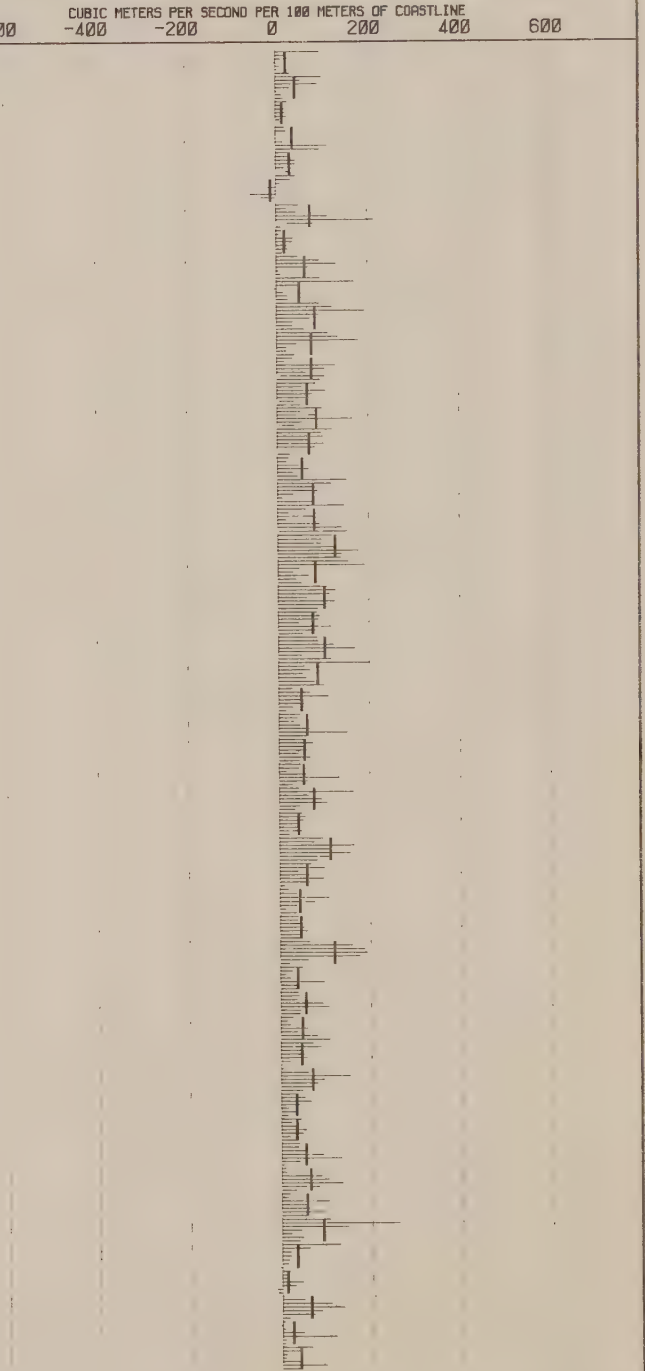
DURING 1967 AT 30N, 119W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	33	18	-7	27	50	60	66	35
8 JAN	10	1	7	27	27	28	42	20
15 JAN	51	52	5	6	4	4	-23	14
22 JAN	-10	23	-24	50	121	50	63	39
29 JAN	55	33	96	149	185	77	65	94
5 FEB	76	21	23	9	43	38	20	33
12 FEB	39	22	61	39	64	21	41	41
19 FEB	15	5	27	34	11	6	8	15
26 FEB	53	27	83	41	43	57	50	51
5 MAR	97	67	68	60	2	-11	-11	39
12 MAR	-9	23	1	-10	54	79	94	33
19 MAR	85	104	118	54	87	120	86	93
26 MAR	18	-16	-14	158	72	2	0	31
2 APR	10	2	7	25	32	47	84	30
9 APR	74	63	72	108	59	47	76	71
16 APR	157	52	52	5	-0	-17	34	40
23 APR	15	40	93	144	62	52	83	70
30 APR	129	119	123	81	16	13	17	71
7 MAY	31	57	168	79	99	150	104	98
14 MAY	84	58	135	56	77	71	95	82
21 MAY	57	30	40	95	69	119	165	82
28 MAY	100	167	186	81	74	59	22	98
4 JUN	3	13	77	125	117	141	113	84
11 JUN	77	41	38	51	139	77	29	65
18 JUN	87	111	85	139	83	91	36	90
25 JUN	21	40	116	87	130	111	76	83
2 JUL	36	15	40	16	132	68	67	54
9 JUL	60	62	109	82	136	88	247	112
16 JUL	126	33	54	66	150	75	49	79
23 JUL	44	117	104	31	7	42	47	56
30 JUL	89	290	76	68	105	36	46	101
6 AUG	96	102	56	181	85	83	67	96
13 AUG	76	42	28	51	30	25	12	38
20 AUG	41	68	93	106	65	74	87	76
27 AUG	135	97	140	103	46	80	16	88
3 SEP	38	90	108	41	78	28	54	62
10 SEP	-15	-16	39	61	32	42	31	25
17 SEP	68	78	22	2	7	61	91	47
24 SEP	75	127	67	18	56	49	93	69
1 OCT	69	45	22	61	171	61	33	66
8 OCT	14	105	87	14	48	72	52	56
15 OCT	28	31	46	44	53	54	37	42
22 OCT	68	14	6	86	125	65	109	68
29 OCT	99	30	21	50	19	5	48	39
5 NOV	28	27	11	32	56	18	17	27
12 NOV	-1	6	8	52	3	-3	-6	8
19 NOV	-24	-51	-36	-8	28	7	2	-12
26 NOV	35	27	86	24	6	8	12	28
3 DEC	11	15	17	46	69	31	7	28
10 DEC	37	41	64	193	96	57	121	87
17 DEC	101	16	56	46	32	55	93	57
24 DEC	28	21	23	8	7	18	20	18
31 DEC	38	10	48	67	57	53	60	47

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 30N, 119W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	95	25	11	-2	10	2	30	24
14 JAN	100	54	91	31	2	12	19	44
21 JAN	25	17	18	22	25	9	0	17
28 JAN	19	22	-0	-1	15	113	95	38
4 FEB	29	26	41	43	17	29	44	33
11 FEB	32	10	-17	-1	-56	-32	1	-9
18 FEB	50	24	44	111	213	79	9	76
25 FEB	9	4	36	35	22	24	12	20
3 MAR	47	94	129	68	3	8	96	64
10 MAR	169	47	-5	14	24	24	94	53
17 MAR	119	191	94	72	33	34	61	86
24 MAR	113	133	179	42	19	19	37	78
31 MAR	35	18	130	103	64	104	95	78
7 APR	84	56	107	79	69	35	51	69
14 APR	97	50	85	164	55	38	123	88
21 APR	96	100	69	102	82	21	28	71
28 APR	25	21	49	69	36	45	152	56
5 MAY	118	81	87	35	10	81	147	80
12 MAY	62	23	80	19	92	139	153	81
19 MAY	119	96	95	126	178	140	138	127
26 MAY	154	191	47	31	67	41	50	83
2 JUN	106	127	112	64	124	103	87	103
9 JUN	83	89	88	44	115	80	52	79
16 JUN	83	85	123	168	103	49	116	104
23 JUN	199	56	69	53	60	79	101	88
30 JUN	30	69	107	51	55	30	16	51
7 JUL	47	42	31	45	68	151	59	63
14 JUL	58	74	54	50	44	69	46	58
21 JUL	46	44	16	57	132	64	31	56
28 JUL	42	162	67	92	107	47	35	79
4 AUG	48	57	52	38	40	48	24	44
11 AUG	95	76	163	113	156	114	81	114
18 AUG	68	98	40	63	96	66	10	63
25 AUG	18	38	107	76	35	12	37	46
1 SEP	41	40	45	51	61	48	47	48
8 SEP	66	159	185	192	175	63	20	123
15 SEP	49	26	13	22	96	38	41	41
22 SEP	38	43	38	92	107	46	43	58
29 SEP	26	14	23	59	95	81	109	50
6 OCT	71	90	49	50	59	22	2	49
13 OCT	5	60	152	94	79	66	48	72
20 OCT	35	51	65	41	15	31	14	36
27 OCT	43	22	35	55	48	18	30	36
3 NOV	42	36	52	92	133	41	4	57
10 NOV	9	10	89	104	133	82	32	66
17 NOV	17	17	103	57	60	93	55	57
24 NOV	105	263	149	41	21	45	38	95
1 DEC	127	60	19	18	13	11	-2	35
8 DEC	16	11	14	44	27	-9	-8	14
15 DEC	2	48	107	136	86	69	13	66
22 DEC	3	-2	5	46	118	5	4	26
29 DEC	64	41	8	7	39	96	40	42



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

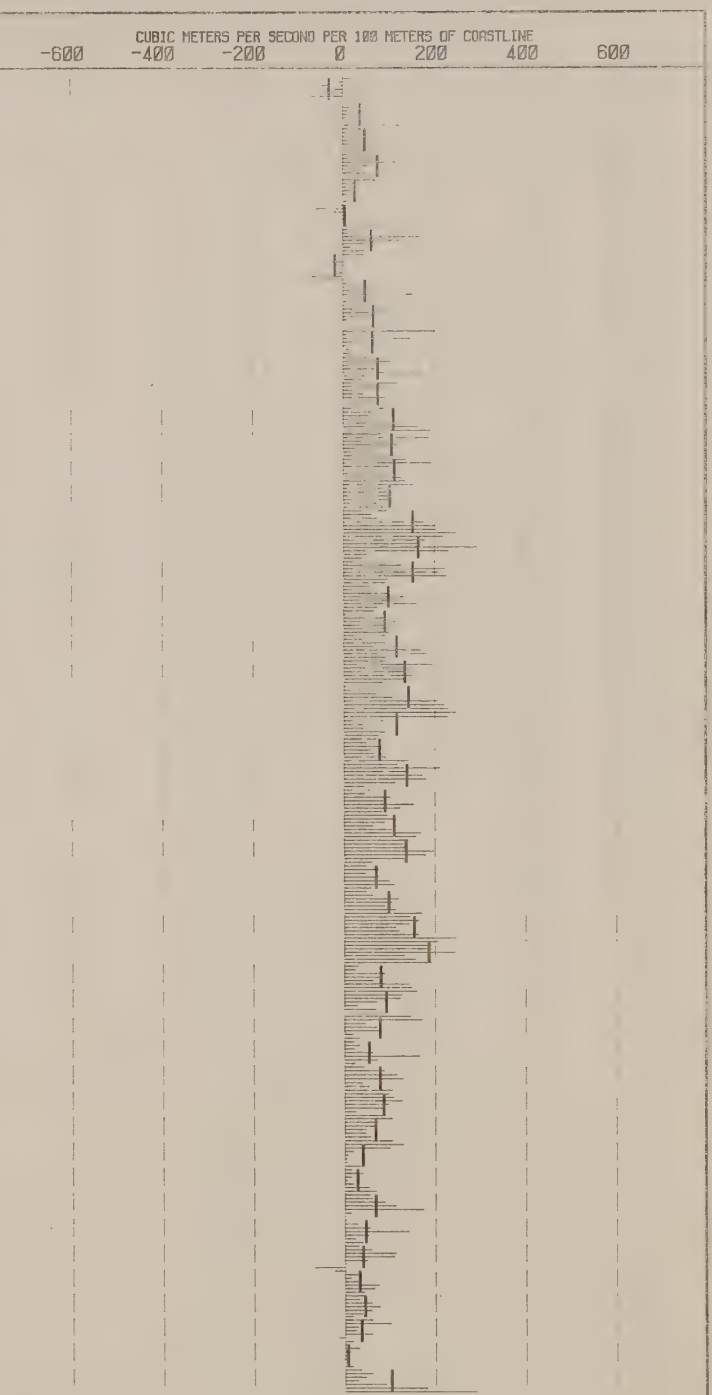
DURING 1969 AT 30N, 119W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	23	10	35	101	27	16	13	32
12 JAN	-9	-85	18	21	7	-1	-50	-14
19 JAN	-103	-53	-24	17	-10	-50	-49	-39
26 JAN	3	44	20	34	65	94	87	50
2 FEB	49	1	14	-10	71	37	22	26
9 FEB	13	5	3	133	170	23	9	51
16 FEB	29	6	142	61	119	37	69	66
23 FEB	-57	-120	-24	18	6	15	106	-8
2 MAR	107	228	258	91	245	166	66	166
9 MAR	72	78	48	88	144	88	31	78
16 MAR	43	112	104	57	52	18	140	75
23 MAR	54	-8	0	22	39	57	102	38
30 MAR	96	115	139	88	37	15	39	76
6 APR	86	60	57	72	140	93	111	88
13 APR	301	289	227	99	89	191	67	180
20 APR	51	26	56	27	238	323	140	123
27 APR	32	48	125	93	309	171	214	142
4 MAY	129	56	20	21	36	165	162	84
11 MAY	194	104	172	144	111	97	120	135
18 MAY	176	170	150	84	139	135	162	145
25 MAY	114	158	192	185	42	35	28	108
1 JUN	46	24	60	100	88	74	108	72
8 JUN	96	83	68	88	152	154	192	119
15 JUN	192	84	43	59	75	107	111	96
22 JUN	134	169	263	60	170	232	208	177
29 JUN	141	114	92	88	208	226	253	160
6 JUL	140	112	108	92	95	73	93	102
13 JUL	135	124	126	93	34	48	86	92
20 JUL	99	130	81	108	143	161	141	122
27 JUL	121	121	178	56	77	96	88	105
3 AUG	124	135	73	54	45	37	31	71
10 AUG	205	203	125	83	115	149	104	140
17 AUG	99	159	162	71	204	366	207	181
24 AUG	61	77	130	128	98	108	107	101
31 AUG	156	150	137	95	74	64	71	107
7 SEP	78	160	248	53	47	29	11	90
14 SEP	26	81	81	96	120	226	246	125
21 SEP	163	45	73	80	65	86	91	86
28 SEP	85	145	162	145	241	195	27	143
5 OCT	12	57	87	142	156	243	189	127
12 OCT	22	7	38	56	58	172	165	74
19 OCT	67	63	43	36	39	42	50	49
26 OCT	53	148	152	25	14	14	21	61
2 NOV	21	24	21	43	-6	-7	-99	-1
9 NOV	-67	-165	-148	-103	-27	11	21	-68
16 NOV	31	52	-22	-4	20	63	58	28
23 NOV	12	14	12	36	59	48	9	27
30 NOV	-3	16	60	99	68	21	36	42
7 DEC	47	44	60	30	15	17	-8	29
14 DEC	17	13	27	13	5	22	36	19
21 DEC	61	88	87	73	81	277	264	133
28 DEC	189	28	-1	10	9	-27	-19	27

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 30N, 119W

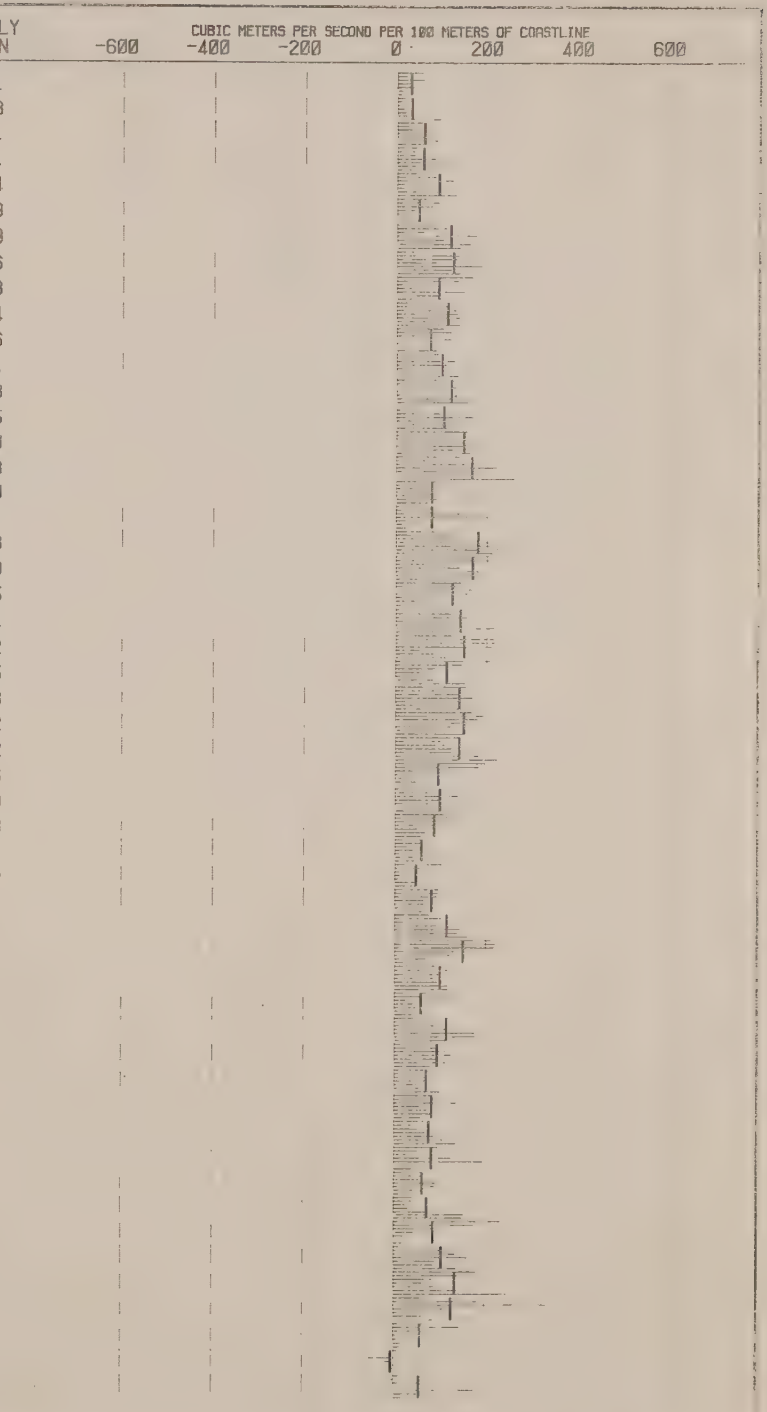
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	23	-14	-45	-29	-50	-73	-5	-28
11 JAN	1	17	16	39	39	39	125	39
18 JAN	55	65	59	38	49	26	59	50
25 JAN	81	63	123	60	31	112	72	77
1 FEB	83	27	15	31	11	19	7	28
8 FEB	-7	-61	-20	-1	2	65	62	6
15 FEB	10	36	171	123	16	16	50	65
22 FEB	46	7	-30	-10	1	-26	-94	-15
1 MAR	-41	33	55	76	152	38	38	50
8 MAR	51	77	134	61	51	14	86	68
15 MAR	203	44	147	33	7	11	18	66
22 MAR	60	107	56	68	169	45	41	78
29 MAR	120	104	76	43	93	68	38	78
5 APR	88	60	67	77	136	165	182	112
12 APR	82	188	131	120	28	85	124	108
19 APR	141	194	100	56	49	128	136	115
26 APR	155	110	111	100	102	71	86	105
3 MAY	94	63	73	175	221	202	247	154
10 MAY	217	178	160	294	230	49	39	167
17 MAY	110	126	224	207	225	97	94	155
24 MAY	58	58	94	133	119	161	74	100
31 MAY	67	54	88	115	118	97	99	91
7 JUN	93	39	103	153	168	182	91	119
14 JUN	93	195	163	131	150	131	86	136
21 JUN	106	60	71	105	208	219	232	143
28 JUN	247	228	99	39	41	90	79	118
5 JUL	70	47	79	61	67	92	144	80
12 JUL	118	210	141	171	180	111	44	139
19 JUL	56	44	102	84	153	122	83	92
26 JUL	95	111	88	62	104	168	155	112
2 AUG	138	129	131	196	178	129	60	137
9 AUG	49	75	45	74	98	108	57	72
16 AUG	48	63	117	104	88	111	171	100
23 AUG	144	163	142	112	120	162	244	155
30 AUG	207	189	195	243	131	156	169	187
6 SEP	30	24	88	82	61	144	148	82
13 SEP	159	125	121	69	28	68	91	94
20 SEP	147	170	47	70	80	19	32	80
27 SEP	19	32	22	59	164	73	23	56
4 OCT	42	86	114	128	39	52	103	81
11 OCT	96	107	127	96	84	25	87	89
18 OCT	105	73	65	47	47	57	104	71
25 OCT	127	98	17	6	4	4	33	41
1 NOV	14	37	15	4	19	52	69	30
8 NOV	54	60	88	112	172	11	-1	71
15 NOV	2	29	54	140	50	21	37	48
22 NOV	31	58	113	109	48	2	-66	42
29 NOV	-22	35	12	34	75	63	41	34
6 DEC	45	29	58	75	57	39	16	46
13 DEC	60	99	28	24	59	-19	15	39
20 DEC	4	29	9	3	-2	-1	15	8
27 DEC	34	61	46	28	90	179	287	104



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 30N, 119W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	57	20	58	29	34	13	9	31
10 JAN	19	33	32	14	19	21	95	33
17 JAN	59	45	32	69	70	89	58	61
24 JAN	47	38	38	81	115	75	30	61
31 JAN	76	84	122	76	41	126	130	94
7 FEB	62	92	75	40	19	14	44	49
14 FEB	88	108	58	176	105	159	133	119
21 FEB	36	171	131	84	109	129	140	126
28 FEB	166	135	14	65	151	88	33	93
7 MAR	83	107	128	134	135	70	140	114
14 MAR	102	119	79	122	6	18	87	76
21 MAR	90	86	126	100	84	81	135	101
28 MAR	104	85	152	111	45	151	213	123
4 APR	71	60	97	169	128	106	107	105
11 APR	151	124	141	171	171	125	163	150
18 APR	156	65	148	222	133	194	259	168
25 APR	128	43	71	94	67	91	68	80
2 MAY	57	75	138	198	66	11	21	81
9 MAY	103	156	108	204	270	229	209	183
16 MAY	217	202	126	137	194	179	127	169
23 MAY	142	140	169	156	88	86	97	125
30 MAY	122	133	158	126	126	228	114	144
6 JUN	122	215	216	212	109	81	117	152
13 JUN	208	143	88	53	79	81	152	115
20 JUN	156	120	165	169	140	114	136	143
27 JUN	165	194	182	160	121	90	151	152
4 JUL	138	99	107	123	124	181	221	142
11 JUL	197	183	67	105	52	44	25	96
18 JUL	82	71	136	100	72	123	111	99
25 JUL	108	114	128	94	49	66	56	88
1 AUG	59	84	48	38	73	94	49	61
8 AUG	101	95	12	11	26	42	55	49
15 AUG	95	111	92	63	67	84	58	81
22 AUG	77	113	81	92	144	138	160	115
29 AUG	233	222	218	129	142	70	57	153
5 SEP	87	117	98	85	96	115	117	102
12 SEP	100	129	24	44	53	37	38	61
19 SEP	68	82	85	109	176	178	115	116
26 SEP	51	91	112	124	103	112	81	96
3 OCT	63	70	90	72	57	53	100	72
10 OCT	84	76	136	67	73	95	58	84
17 OCT	66	35	54	69	86	105	137	79
24 OCT	95	54	90	124	195	53	99	84
31 OCT	61	63	55	89	106	42	28	64
7 NOV	43	40	91	29	77	151	149	74
14 NOV	263	177	95	43	21	-9	18	88
21 NOV	95	108	134	159	92	86	136	107
28 NOV	185	141	87	63	89	138	248	136
5 DEC	57	184	336	108	62	61	86	128
12 DEC	72	144	62	81	21	18	17	59
19 DEC	9	-0	-55	-23	15	-4	34	-4
26 DEC	17	-4	54	91	175	51	17	57



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

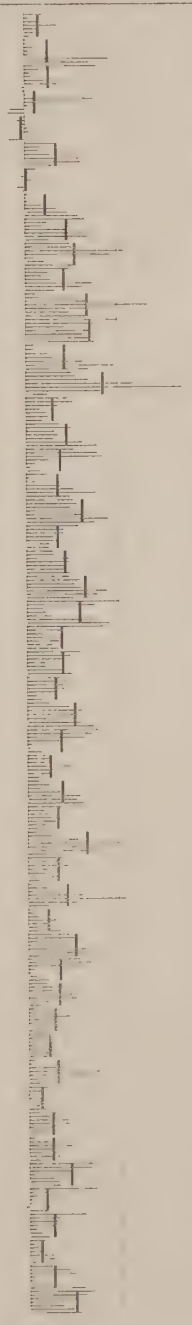
DURING 1972 AT 30N, 119W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	72	34	-17	20	53	30	115	44
9 JAN	57	73	85	109	23	9	53	58
16 JAN	61	55	50	33	91	195	217	102
23 JAN	121	198	43	49	16	54	21	72
30 JAN	16	10	10	1	13	49	46	21
6 FEB	34	61	31	-13	-15	10	41	21
13 FEB	114	105	158	89	23	18	74	83
20 FEB	94	82	109	156	165	104	52	109
27 FEB	107	151	210	165	192	233	140	171
5 MAR	19	57	35	20	87	165	126	73
12 MAR	131	171	107	29	63	99	160	109
19 MAR	88	61	54	118	141	109	123	99
26 MAR	151	89	53	120	52	50	85	86
2 APR	124	49	21	43	98	185	226	106
9 APR	198	68	51	106	114	44	32	88
16 APR	77	159	173	113	93	95	84	113
23 APR	90	187	167	36	37	120	129	110
30 APR	51	72	71	73	97	99	107	81
7 MAY	64	107	208	155	78	73	98	112
14 MAY	81	79	72	93	164	51	10	78
21 MAY	69	150	139	168	113	50	51	106
28 MAY	91	77	40	53	54	75	129	74
4 JUN	109	73	52	42	102	94	161	90
11 JUN	267	147	66	55	123	151	115	132
18 JUN	96	69	54	45	53	71	88	68
25 JUN	89	82	101	107	68	44	38	76
2 JUL	51	86	88	82	94	55	63	74
9 JUL	91	87	75	62	86	57	22	69
16 JUL	12	8	21	34	28	58	79	34
23 JUL	150	109	117	133	143	79	46	111
30 JUL	61	122	159	151	85	51	21	93
6 AUG	43	34	67	68	47	25	19	43
13 AUG	64	99	106	141	117	76	31	91
20 AUG	65	76	115	154	125	66	42	92
27 AUG	25	43	8	-4	16	12	9	15
3 SEP	24	4	47	150	67	25	33	50
10 SEP	43	54	102	82	84	58	47	67
17 SEP	45	16	53	65	95	116	75	66
24 SEP	68	56	28	37	43	68	109	58
1 OCT	150	70	15	24	93	82	2	62
8 OCT	7	13	11	11	7	17	19	12
15 OCT	21	11	17	24	100	82	27	40
22 OCT	21	25	41	25	9	26	55	29
29 OCT	187	145	20	23	46	44	69	76
5 NOV	79	17	50	77	59	69	120	67
12 NOV	26	4	17	4	14	74	62	29
19 NOV	72	64	27	55	88	62	30	57
26 NOV	48	31	10	6	16	20	24	22
3 DEC	49	110	36	36	32	29	27	45
10 DEC	27	13	16	93	8	23	31	30
17 DEC	25	48	69	112	68	70	79	67
24 DEC	144	36	-4	23	179	136	78	85
31 DEC	252	203	102	69	62	34	46	110

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 30N, 119W

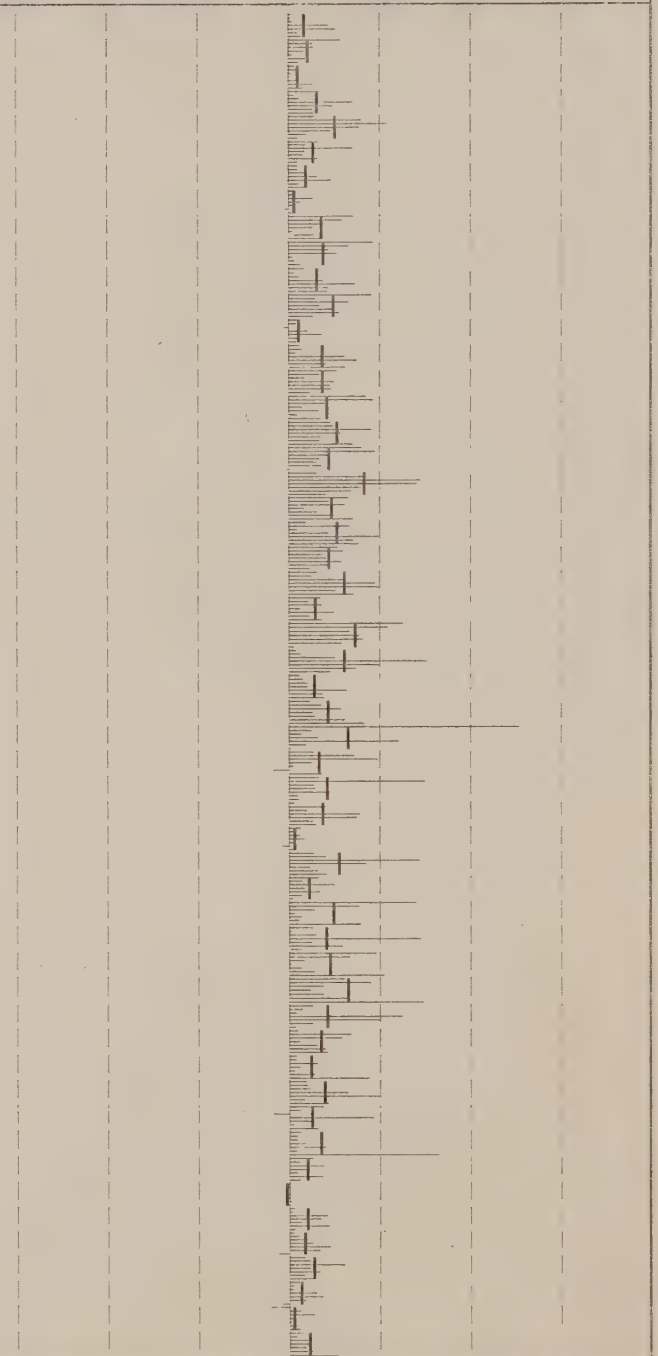
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	39	8	34	70	31	33	10	32
14 JAN	2	3	20	7	8	104	140	52
21 JAN	156	31	10	17	92	71	-5	53
28 JAN	-5	3	150	82	5	-33	-36	24
4 FEB	-3	-16	-3	6	10	-2	-33	-6
11 FEB	67	38	33	56	118	119	58	70
18 FEB	25	5	-9	17	3	-17	-4	3
25 FEB	4	1	4	37	70	93	116	46
4 MAR	130	47	38	89	134	154	52	92
11 MAR	97	106	218	188	21	42	104	111
18 MAR	97	49	67	55	146	126	64	86
25 MAR	29	112	134	268	184	97	133	136
1 APR	200	151	85	141	124	141	150	142
8 APR	15	19	63	59	124	191	135	87
15 APR	97	109	136	301	342	163	46	171
22 APR	92	103	68	31	46	51	34	61
29 APR	73	101	60	68	58	121	154	91
6 MAY	103	155	169	47	18	9	32	76
13 MAY	47	7	17	73	103	153	93	71
20 MAY	103	111	96	106	122	178	148	123
27 MAY	113	80	80	58	65	48	49	70
3 JUN	56	60	90	105	97	85	104	85
10 JUN	91	118	103	120	175	155	143	129
17 JUN	205	147	36	42	55	149	194	118
24 JUN	166	78	36	69	60	55	69	77
1 JUL	110	94	76	37	62	79	99	81
8 JUL	81	90	80	79	58	23	33	63
15 JUL	49	30	118	113	105	119	144	106
22 JUL	154	140	126	67	8	7	30	76
29 JUL	38	49	36	97	75	49	24	53
5 AUG	25	47	54	78	115	106	123	78
12 AUG	126	52	64	77	61	55	48	69
19 AUG	51	53	110	198	255	156	102	132
26 AUG	74	111	100	45	51	68	33	69
2 SEP	20	39	65	119	214	106	46	87
9 SEP	2	16	56	60	48	70	72	46
16 SEP	89	112	95	86	126	132	99	106
23 SEP	135	136	129	14	4	33	47	71
30 SEP	43	84	79	105	104	44	28	70
7 OCT	46	86	87	68	53	35	38	59
14 OCT	45	95	42	21	42	54	40	48
21 OCT	14	5	83	154	128	57	22	66
28 OCT	41	36	-15	32	54	22	37	30
4 NOV	56	44	84	87	48	37	18	53
11 NOV	10	51	93	73	58	67	26	54
18 NOV	139	139	112	74	53	66	74	94
25 NOV	145	67	19	5	4	-8	45	40
2 DEC	123	66	63	61	15	26	42	56
9 DEC	31	9	19	24	50	52	13	28
16 DEC	43	87	102	12	4	18	121	56
23 DEC	142	126	98	73	74	95	113	103



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 27N, 116W

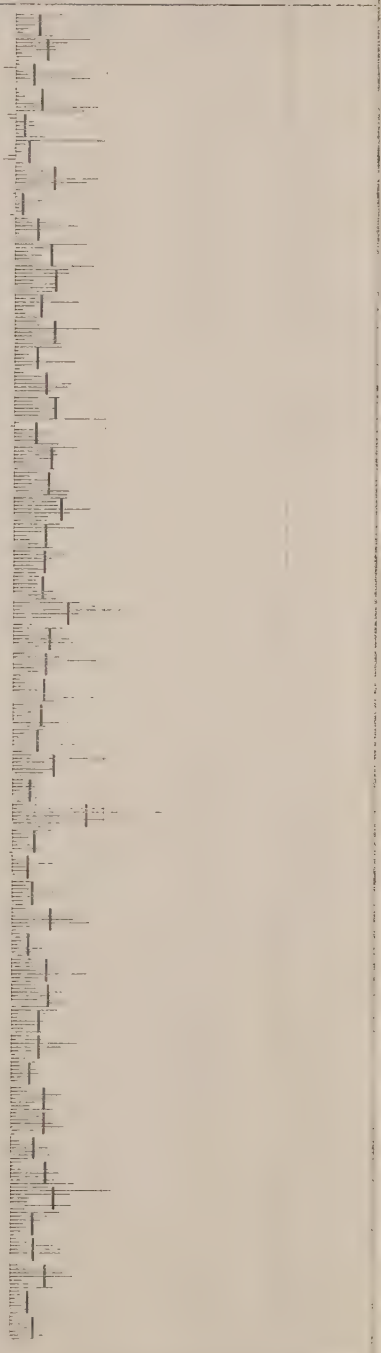
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	4	9	7	87	101	18	27	35
8 JAN	111	53	54	39	7	35	21	45
15 JAN	12	28	5	0	21	52	30	21
22 JAN	65	12	22	141	96	52	55	63
29 JAN	55	157	214	155	92	38	17	104
5 FEB	64	36	141	34	30	62	19	55
12 FEB	17	18	36	62	92	22	35	40
19 FEB	8	11	53	25	8	-6	6	15
26 FEB	142	116	76	51	5	58	70	74
5 MAR	185	130	85	103	8	12	24	78
12 MAR	31	9	22	75	145	87	84	65
19 MAR	179	59	131	65	98	110	52	99
26 MAR	18	14	-8	40	70	25	17	25
2 APR	22	28	13	122	149	79	123	77
9 APR	104	65	35	89	90	92	46	76
16 APR	167	183	77	28	64	18	69	87
23 APR	90	96	179	113	68	66	140	107
30 APR	159	188	91	65	61	69	-2	90
7 MAY	61	170	289	280	157	136	81	168
14 MAY	131	86	122	33	60	98	139	95
21 MAY	96	132	16	85	197	140	152	108
28 MAY	107	118	75	80	116	87	44	89
4 JUN	61	49	124	187	200	101	142	123
11 JUN	68	42	70	25	97	45	73	60
18 JUN	250	216	133	154	161	118	10	149
25 JUN	14	24	101	302	198	146	89	125
2 JUL	22	29	41	40	125	73	75	58
9 JUL	44	71	111	51	56	122	164	88
16 JUL	506	47	26	62	239	36	2	131
23 JUL	52	141	194	47	7	-33	71	69
30 JUL	63	297	52	57	88	19	20	85
6 AUG	9	77	38	154	148	50	58	76
13 AUG	23	12	22	32	11	-14	14	14
20 AUG	53	80	287	169	43	63	82	111
27 AUG	64	28	98	32	66	26	7	46
3 SEP	277	152	54	11	26	20	157	100
10 SEP	50	2	57	288	48	116	30	84
17 SEP	191	132	93	1	27	53	208	92
24 SEP	119	178	73	47	75	131	295	131
1 OCT	50	28	14	248	199	51	13	86
8 OCT	18	133	113	21	60	79	84	73
15 OCT	19	14	59	21	10	54	174	50
22 OCT	37	39	46	128	201	31	85	81
29 OCT	74	24	-34	183	46	7	62	52
5 NOV	23	17	17	35	77	13	328	73
12 NOV	51	22	73	36	16	72	21	42
19 NOV	-8	-2	0	-6	-3	2	-8	-4
26 NOV	9	9	82	67	24	66	10	41
3 DEC	9	20	38	50	88	66	-22	36
10 DEC	32	45	119	44	66	31	50	55
17 DEC	24	8	6	59	72	34	-13	27
24 DEC	-40	25	54	9	1	17	22	12
31 DEC	32	14	40	41	94	51	107	45



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 27N, 116W

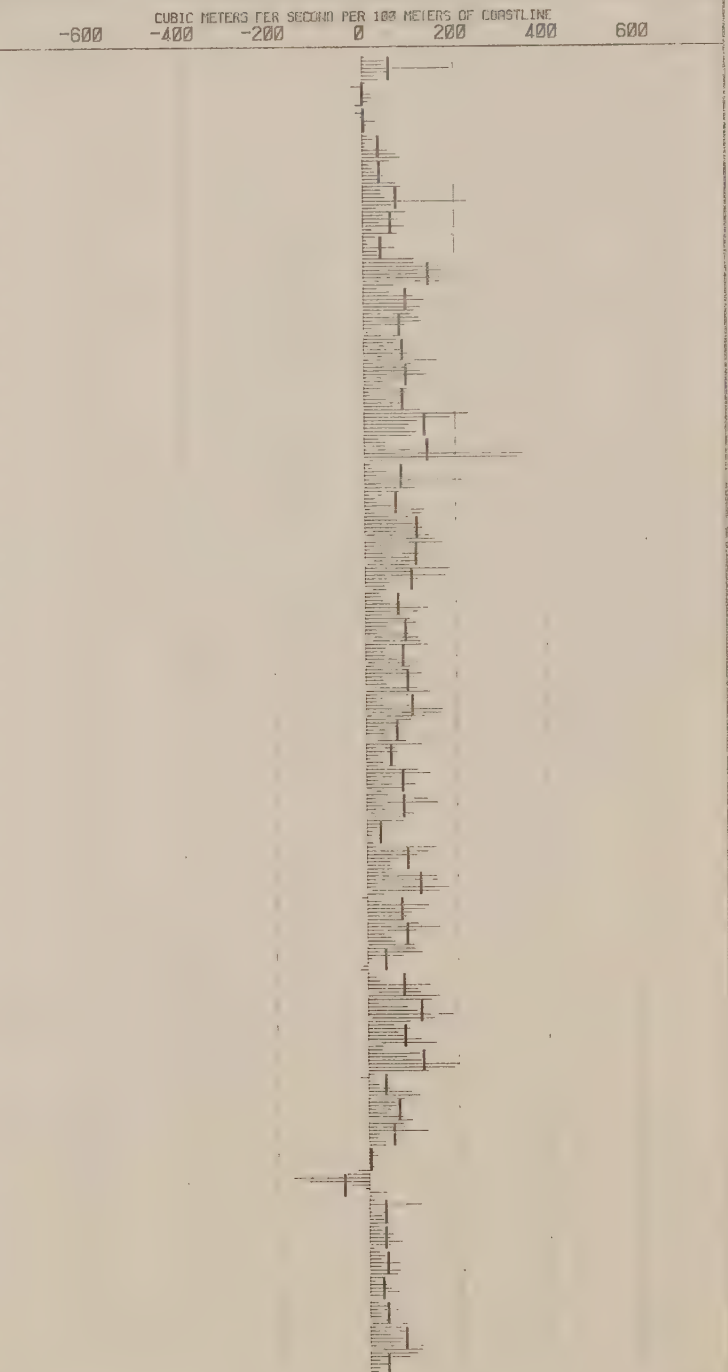
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	100	50	60	45	20	15	81	54
14 JAN	163	113	85	86	14	37	6	72
21 JAN	7	-28	17	128	163	3	-1	41
28 JAN	2	6	21	6	58	181	149	60
4 FEB	-21	-14	43	40	33	8	66	22
11 FEB	135	31	-4	13	-16	-28	31	32
18 FEB	64	61	72	195	157	58	11	88
25 FEB	-6	7	62	29	8	34	-12	17
3 MAR	27	73	139	65	7	14	36	52
10 MAR	158	74	28	58	32	51	173	82
17 MAR	116	118	93	40	102	91	81	92
24 MAR	66	82	140	43	16	22	50	60
31 MAR	47	57	187	87	44	102	102	89
7 APR	103	32	30	20	131	44	10	53
14 APR	18	61	64	125	115	80	43	72
21 APR	97	65	65	92	58	69	204	93
28 APR	12	-8	42	85	60	61	96	50
5 MAY	139	90	94	78	22	73	89	84
12 MAY	60	33	75	47	96	120	115	78
19 MAY	115	91	95	170	121	75	71	106
26 MAY	100	132	60	30	34	56	86	71
2 JUN	67	114	82	70	45	69	47	71
9 JUN	56	47	52	48	87	74	93	65
16 JUN	144	178	265	142	82	4	41	122
23 JUN	109	23	75	122	130	57	60	82
30 JUN	33	100	194	63	48	57	25	74
7 JUL	56	28	16	51	77	176	92	71
14 JUL	29	110	40	34	45	122	70	64
21 JUL	67	28	12	63	159	47	21	57
28 JUL	85	214	68	63	93	66	52	91
4 AUG	22	45	52	53	33	53	19	40
11 AUG	66	238	329	105	236	105	65	163
18 AUG	84	83	36	28	64	63	-5	50
25 AUG	-2	37	87	56	40	6	26	36
1 SEP	12	31	36	100	60	26	24	46
8 SEP	32	68	137	134	171	49	13	86
15 SEP	38	51	19	22	65	44	26	38
22 SEP	46	80	79	56	164	61	56	77
29 SEP	54	54	128	84	56	122	82	83
6 OCT	101	78	27	73	56	27	66	61
13 OCT	38	65	146	109	43	8	31	63
20 OCT	53	57	56	62	41	23	8	43
27 OCT	52	59	113	97	55	41	94	73
3 NOV	84	62	86	103	118	50	8	73
10 NOV	0	17	71	79	65	86	38	51
17 NOV	26	9	83	106	62	119	139	78
24 NOV	84	220	131	42	37	131	30	96
1 DEC	108	79	68	28	37	22	8	50
8 DEC	15	37	94	110	111	2	0	53
15 DEC	17	114	115	136	26	41	94	77
22 DEC	20	23	10	51	28	115	28	39
29 DEC	77	26	21	38	66	74	62	52



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 27N, 116W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	10	50	44	193	60	20	30	60
12 JAN	7	-25	2	17	20	11	-14	3
19 JAN	0	-13	-1	27	7	-0	4	3
26 JAN	10	23	6	3	54	73	82	36
2 FEB	59	12	21	26	44	32	72	38
9 FEB	83	39	39	47	220	62	20	75
16 FEB	94	43	75	35	90	19	73	61
23 FEB	26	7	9	69	29	30	110	40
2 MAR	100	170	173	122	190	169	65	144
9 MAR	27	56	109	132	96	125	112	94
16 MAR	105	120	129	92	20	10	81	81
23 MAR	74	66	46	82	125	43	161	85
30 MAR	113	95	126	139	79	53	59	95
6 APR	95	91	80	61	84	63	121	85
13 APR	229	189	116	96	88	115	104	134
20 APR	30	46	46	100	350	330	65	139
27 APR	15	13	58	36	215	117	113	82
4 MAY	77	39	26	28	61	130	126	70
11 MAY	95	69	119	125	110	140	159	116
18 MAY	171	116	52	119	97	146	90	114
25 MAY	186	104	175	116	54	43	49	104
1 JUN	32	36	40	75	137	114	81	74
8 JUN	95	111	45	56	94	116	120	91
15 JUN	136	45	40	80	71	114	97	83
22 JUN	94	123	107	38	45	114	142	95
29 JUN	92	37	44	94	169	168	128	104
6 JUL	99	78	64	59	50	52	86	70
13 JUL	121	64	68	27	11	37	66	56
20 JUL	114	141	59	46	105	82	33	83
27 JUL	45	134	156	36	42	104	75	85
3 AUG	80	74	24	14	12	9	11	32
10 AUG	153	134	110	70	50	71	58	92
17 AUG	59	153	155	97	180	160	37	120
24 AUG	-11	33	134	128	98	84	80	78
31 AUG	111	161	105	35	53	60	103	90
7 SEP	106	120	80	10	2	-9	-15	42
14 SEP	3	19	25	136	111	116	159	81
21 SEP	140	80	85	107	189	146	92	120
28 SEP	57	92	66	75	116	151	31	84
5 OCT	31	113	86	115	199	191	132	124
12 OCT	14	-19	8	21	51	93	113	40
19 OCT	79	57	62	48	71	73	96	69
26 OCT	77	78	130	22	20	36	37	57
2 NOV	5	10	17	17	3	10	-23	5
9 NOV	-48	-166	-132	-38	-14	37	3	-51
16 NOV	12	114	-3	41	25	33	44	38
23 NOV	22	29	52	43	70	44	8	38
30 NOV	21	33	24	66	31	65	59	43
7 DEC	28	11	36	45	65	31	0	31
14 DEC	18	38	61	27	24	42	79	41
21 DEC	67	79	44	74	80	116	113	82
28 DEC	104	86	19	37	20	15	10	42



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

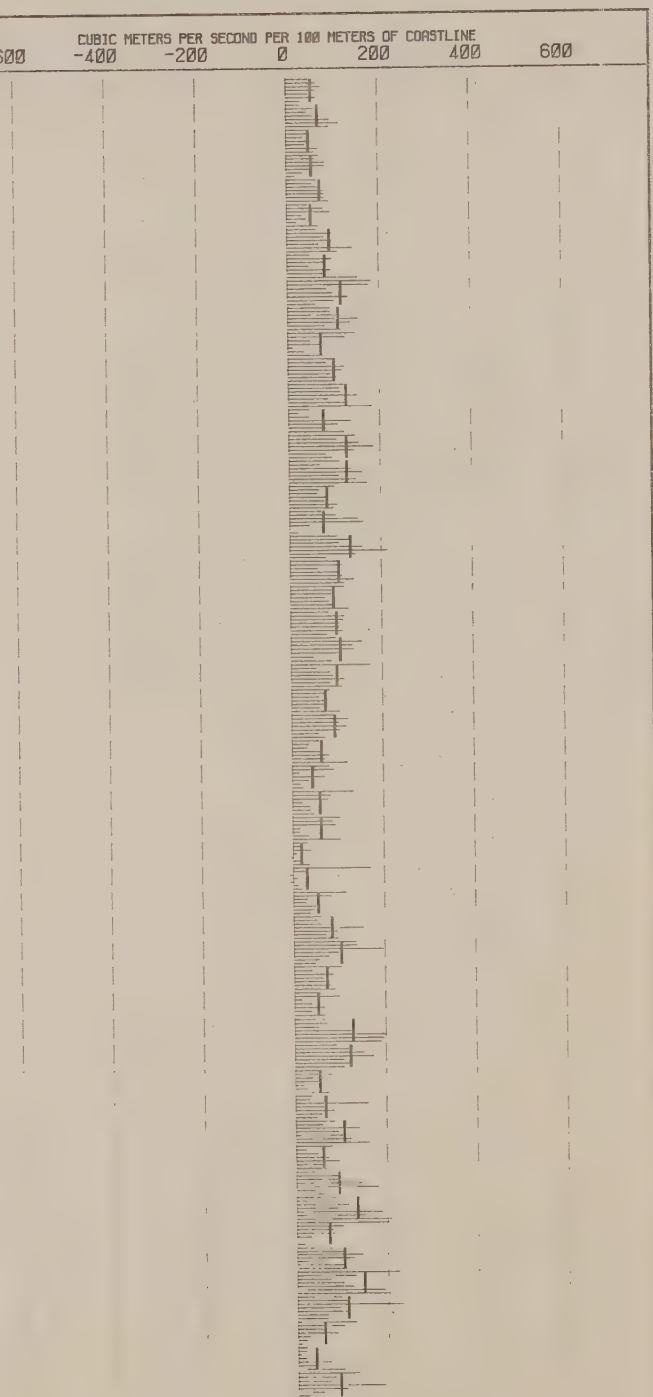
DURING 1970 AT 27N, 116W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	14	-13	-23	3	2	0	14	-0
11 JAN	29	50	42	82	49	69	159	69
18 JAN	96	94	111	76	54	42	78	79
25 JAN	100	82	95	68	61	75	78	80
1 FEB	74	59	43	26	4	52	42	43
8 FEB	1	-7	-4	17	34	76	62	26
15 FEB	45	86	146	123	18	-8	29	63
22 FEB	34	8	-2	-2	12	-5	-25	3
1 MAR	-14	29	40	76	86	58	53	47
8 MAR	69	81	100	72	59	41	86	74
15 MAR	148	40	110	28	3	5	40	53
22 MAR	107	148	88	87	152	48	55	98
29 MAR	80	44	71	46	90	53	77	67
5 APR	97	51	55	45	100	106	94	78
12 APR	41	104	93	119	31	51	88	75
19 APR	103	144	81	98	111	122	153	116
26 APR	119	111	85	108	98	91	138	107
3 MAY	105	56	81	110	200	139	202	128
10 MAY	198	139	151	277	207	77	78	161
17 MAY	212	124	185	178	152	94	65	144
24 MAY	46	41	71	93	80	84	72	71
31 MAY	99	31	76	77	72	42	43	63
7 JUN	71	49	79	147	121	105	46	88
14 JUN	93	169	136	137	149	98	57	120
21 JUN	60	28	62	72	136	139	159	94
28 JUN	159	109	58	36	25	62	69	74
5 JUL	17	19	53	25	66	96	91	52
12 JUL	107	118	98	99	80	50	25	82
19 JUL	36	24	61	44	131	67	42	58
26 JUL	68	78	69	48	104	133	55	78
2 AUG	53	68	90	158	176	43	21	87
9 AUG	15	67	46	62	72	62	24	50
16 AUG	34	58	66	69	54	60	133	68
23 AUG	90	68	55	64	94	141	106	102
30 AUG	128	229	153	85	60	19	52	103
6 SEP	30	32	79	69	59	71	124	66
13 SEP	102	107	101	37	24	28	73	68
20 SEP	69	89	51	53	62	74	90	69
27 SEP	26	8	12	62	100	29	15	37
4 OCT	55	97	74	86	82	35	47	68
11 OCT	79	65	78	76	52	22	88	66
18 OCT	72	45	34	47	55	43	153	64
25 OCT	118	108	84	110	37	10	28	71
1 NOV	17	57	36	11	42	89	126	53
8 NOV	126	84	105	136	154	37	43	98
15 NOV	34	42	63	109	28	21	50	50
22 NOV	115	82	70	61	28	6	3	52
29 NOV	-1	67	55	59	150	100	54	70
6 DEC	49	26	43	76	78	75	28	53
13 DEC	38	129	89	45	53	19	10	55
20 DEC	20	40	36	31	42	34	48	36
27 DEC	65	66	73	78	73	80	127	80

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 27N, 116W

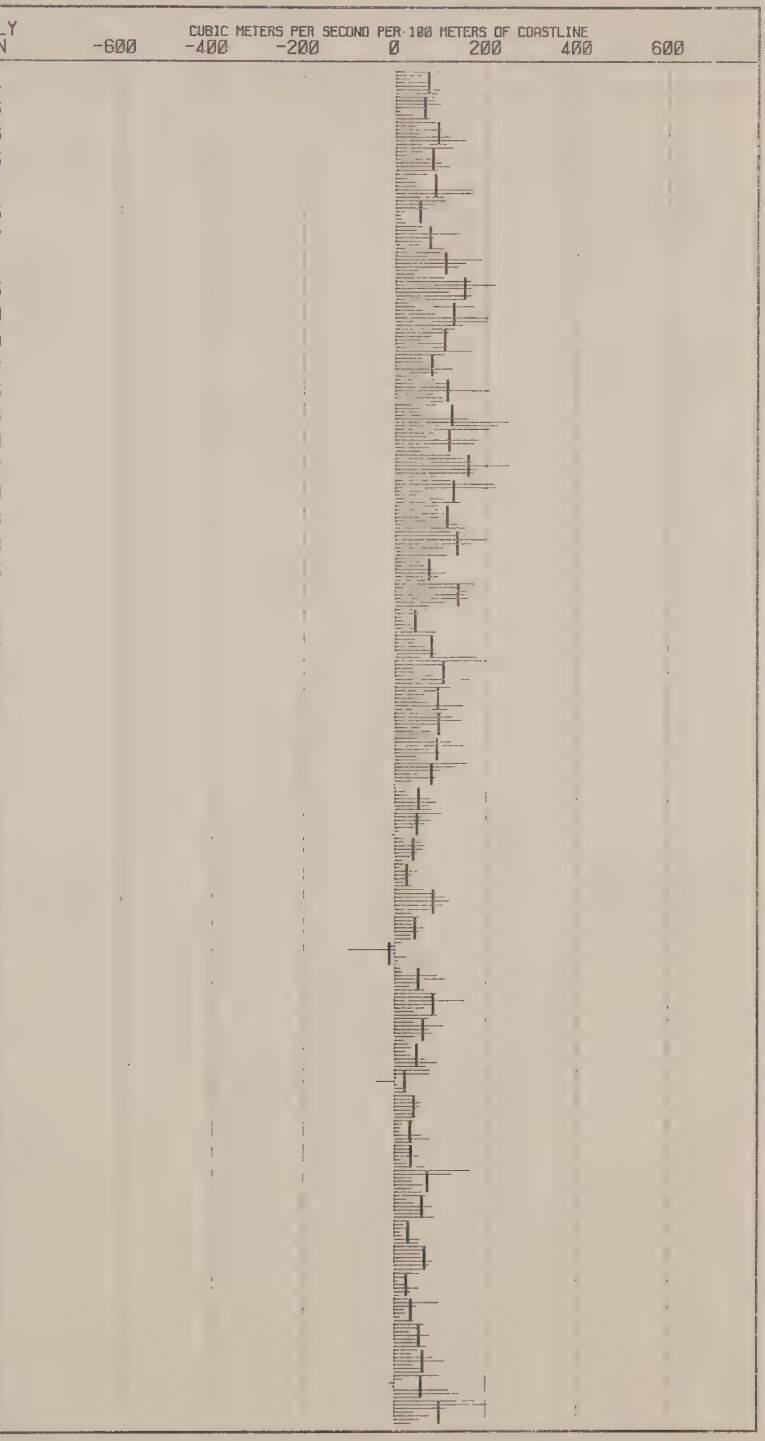
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	49	64	74	65	47	64	30	56
10 JAN	29	61	45	58	94	114	92	70
17 JAN	49	48	35	52	40	68	60	50
24 JAN	70	60	81	83	51	34	20	57
31 JAN	64	53	70	83	79	82	89	74
7 FEB	45	77	95	32	43	20	69	54
14 FEB	61	97	80	95	69	141	109	93
21 FEB	47	96	83	46	94	77	151	85
28 FEB	163	175	84	98	130	100	59	119
7 MAR	92	91	115	155	136	80	116	112
14 MAR	150	124	48	78	9	34	76	74
21 MAR	102	83	122	117	92	103	100	103
28 MAR	121	110	113	151	86	128	181	127
4 APR	44	20	44	136	105	81	120	79
11 APR	144	104	151	104	142	78	84	128
18 APR	111	67	137	160	106	147	170	129
25 APR	98	64	61	83	77	103	96	83
2 MAY	69	100	147	160	42	-1	17	76
9 MAY	106	129	106	159	212	142	78	133
16 MAY	108	111	60	109	112	137	116	108
23 MAY	115	68	88	74	83	94	126	95
30 MAY	82	116	113	105	104	111	78	101
6 JUN	99	155	134	136	109	49	88	110
13 JUN	173	54	84	90	118	83	109	102
20 JUN	83	75	60	74	70	59	103	75
27 JUN	96	122	103	118	105	58	72	96
4 JUL	59	37	93	65	80	70	121	66
11 JUL	79	90	15	70	34	16	23	47
18 JUL	132	83	75	20	98	37	47	62
25 JUL	103	87	92	16	14	35	104	64
1 AUG	30	20	41	7	-3	14	93	20
8 AUG	168	25	-6	9	-7	11	19	31
15 AUG	115	82	30	27	48	50	36	55
22 AUG	79	51	62	153	94	70	96	86
29 AUG	136	139	196	97	76	56	46	107
5 SEP	103	38	84	63	71	77	89	75
12 SEP	57	99	15	36	66	36	68	54
19 SEP	70	69	52	130	201	194	189	129
26 SEP	91	116	150	173	105	122	106	123
3 OCT	52	82	74	53	23	28	74	55
10 OCT	34	30	159	61	84	56	46	67
17 OCT	84	59	136	92	107	121	159	109
24 OCT	79	23	48	71	94	58	66	63
31 OCT	45	92	112	142	181	40	65	97
7 NOV	94	81	114	94	187	177	208	136
14 NOV	201	103	79	83	31	1	17	74
21 NOV	76	103	143	126	69	103	122	106
28 NOV	225	128	73	103	121	192	204	149
5 DEC	97	109	235	95	110	66	82	113
12 DEC	127	101	59	88	26	20	9	62
19 DEC	19	19	6	18	72	53	102	41
26 DEC	136	82	74	191	100	57	23	96



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1972 AT 27N, 116W

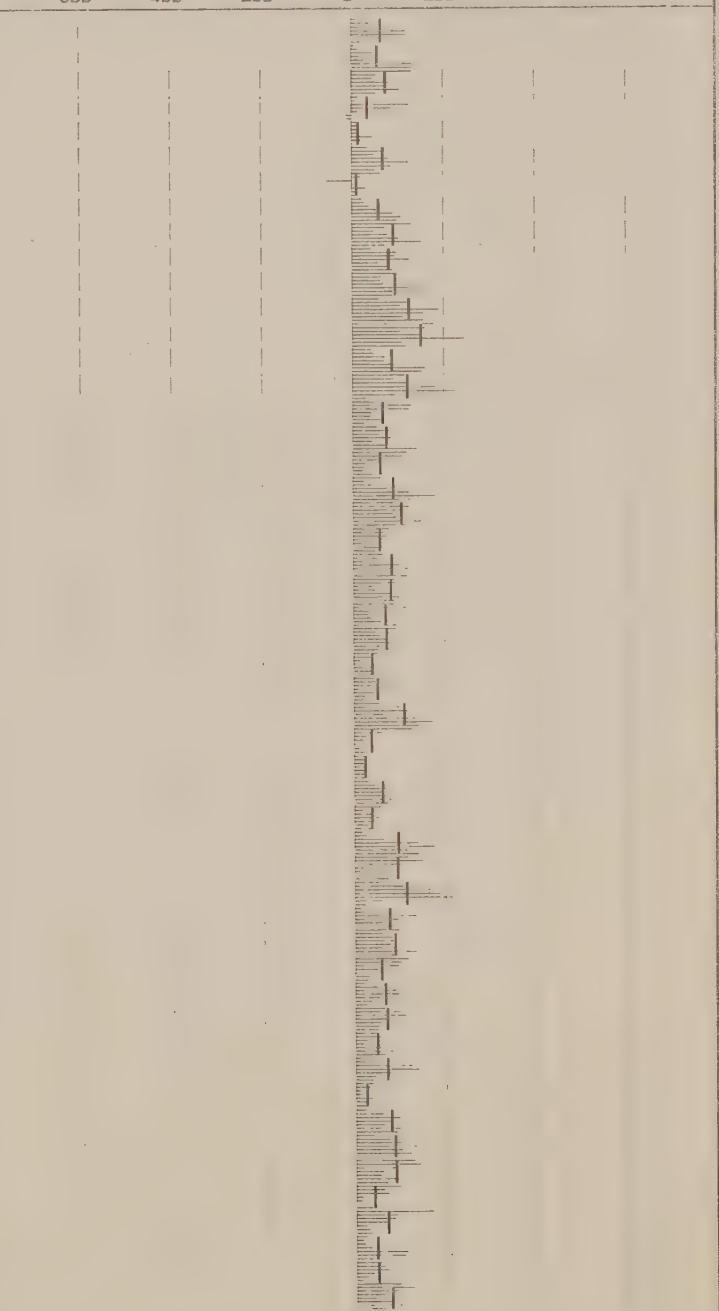
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	95	55	33	82	66	95	89	74
9 JAN	83	85	100	72	7	35	79	66
16 JAN	87	47	101	54	121	151	110	96
23 JAN	126	58	24	76	99	117	91	85
30 JAN	68	28	45	45	171	171	104	91
6 FEB	109	115	00	17	10	15	22	55
13 FEB	59	46	139	81	58	50	107	77
20 FEB	96	117	188	152	135	50	40	111
27 FEB	106	163	218	165	117	167	147	155
5 MAR	39	172	58	85	206	205	147	130
12 MAR	128	115	76	58	100	113	168	109
19 MAR	106	56	61	84	124	92	48	82
26 MAR	83	119	108	207	81	103	107	115
2 APR	89	51	51	58	161	250	224	126
9 APR	206	82	67	102	172	76	55	120
16 APR	121	147	165	249	177	171	106	162
23 APR	120	216	224	59	43	106	142	130
30 APR	96	91	106	94	134	136	152	116
7 MAY	120	171	198	165	105	91	112	138
14 MAY	62	52	62	81	111	93	64	75
21 MAY	172	165	157	150	158	111	72	141
28 MAY	68	53	12	19	32	45	69	45
4 JUN	79	43	44	68	75	91	178	83
11 JUN	226	101	38	40	83	161	101	107
18 JUN	123	91	64	52	74	148	114	95
25 JUN	103	125	147	96	53	77	80	97
2 JUL	92	121	150	71	97	47	75	93
9 JUL	158	134	100	49	89	38	-1	81
16 JUL	-2	22	31	78	91	74	77	53
23 JUL	105	62	80	64	41	8	-8	50
30 JUL	20	58	66	60	47	33	17	43
6 AUG	18	11	47	37	28	17	41	28
13 AUG	63	91	111	118	103	76	37	86
20 AUG	54	49	43	64	49	34	36	47
27 AUG	14	-16	-102	-4	26	7	2	-10
3 SEP	12	15	93	111	50	33	65	54
10 SEP	92	84	152	77	65	41	92	86
17 SEP	75	43	107	75	85	45	20	64
24 SEP	51	37	24	35	65	92	68	50
1 OCT	76	76	5	-40	5	25	26	25
8 OCT	43	33	55	51	36	41	42	43
15 OCT	40	15	13	9	59	77	38	36
22 OCT	33	34	35	53	13	27	66	37
29 OCT	166	123	37	39	63	35	61	75
5 NOV	67	26	44	82	65	65	87	62
12 NOV	29	20	34	11	17	54	53	31
19 NOV	68	68	56	60	81	77	68	68
26 NOV	54	22	8	23	53	33	10	29
3 DEC	28	95	48	22	24	13	39	38
10 DEC	63	54	32	75	46	57	71	57
17 DEC	49	35	83	109	40	59	67	63
24 DEC	98	18	-10	-3	119	142	57	60
31 DEC	174	205	114	41	77	55	35	100



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 27N, 116W

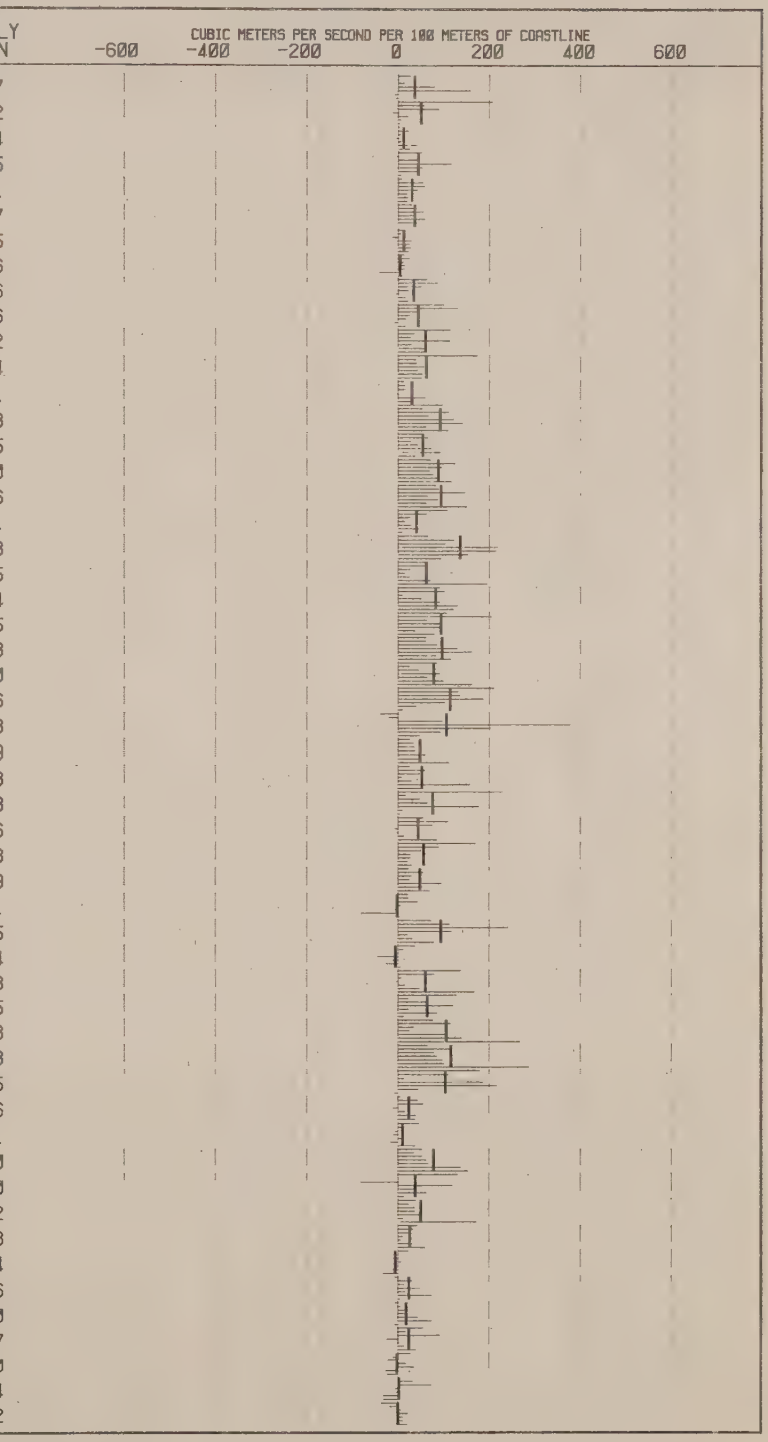
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	35	37	58	118	124	63	22	65
14 JAN	3	16	49	42	25	134	133	58
21 JAN	129	52	45	80	74	104	52	76
28 JAN	15	12	126	112	11	-11	-8	37
4 FEB	9	13	12	14	43	17	-0	16
11 FEB	34	64	49	81	123	84	51	69
18 FEB	63	17	-54	2	30	9	13	11
25 FEB	21	26	37	53	88	107	96	61
4 MAR	129	70	45	76	100	151	69	91
11 MAR	40	95	93	123	56	76	86	81
18 MAR	90	63	61	66	167	143	86	97
25 MAR	58	119	103	187	154	111	153	126
1 APR	179	158	104	153	244	107	115	151
8 APR	40	45	71	68	91	159	149	89
15 APR	112	91	122	181	227	94	28	122
22 APR	57	128	122	40	43	67	23	68
29 APR	51	79	58	84	43	74	140	76
6 MAY	117	107	85	29	25	21	44	61
13 MAY	60	25	41	74	122	182	125	90
20 MAY	91	122	105	87	95	147	115	109
27 MAY	77	68	74	51	45	55	48	60
3 JUN	63	71	59	102	118	66	118	85
10 JUN	89	116	65	46	60	99	87	83
17 JUN	130	114	35	34	39	63	93	72
24 JUN	94	50	61	112	79	56	65	74
1 JUL	94	43	14	27	36	38	41	42
8 JUL	44	99	80	48	43	24	34	53
15 JUL	55	98	116	63	133	180	141	112
22 JUL	127	61	27	19	3	15	28	40
29 JUL	21	25	25	24	33	24	26	25
5 AUG	31	45	74	69	83	80	71	65
12 AUG	56	16	40	55	49	31	37	40
19 AUG	16	28	67	140	175	114	140	97
26 AUG	115	150	101	72	80	83	71	96
2 SEP	60	103	164	188	218	61	22	117
9 SEP	18	59	133	95	61	82	97	78
16 SEP	82	81	84	77	87	133	87	90
23 SEP	117	101	95	48	-1	32	26	60
30 SEP	45	74	87	93	97	34	41	67
7 OCT	65	100	112	75	55	51	47	72
14 OCT	45	64	25	16	54	80	66	50
21 OCT	52	41	122	139	75	44	36	73
28 OCT	36	30	9	21	36	25	27	26
4 NOV	67	58	96	74	65	97	97	79
11 NOV	40	74	103	133	100	119	42	88
18 NOV	127	140	85	58	55	92	69	89
25 NOV	99	60	70	13	11	0	34	41
2 DEC	169	90	85	71	21	29	36	71
9 DEC	24	14	18	32	113	105	33	48
16 DEC	53	63	71	35	26	14	95	51
23 DEC	128	90	62	43	74	98	64	80



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 24N, 113W

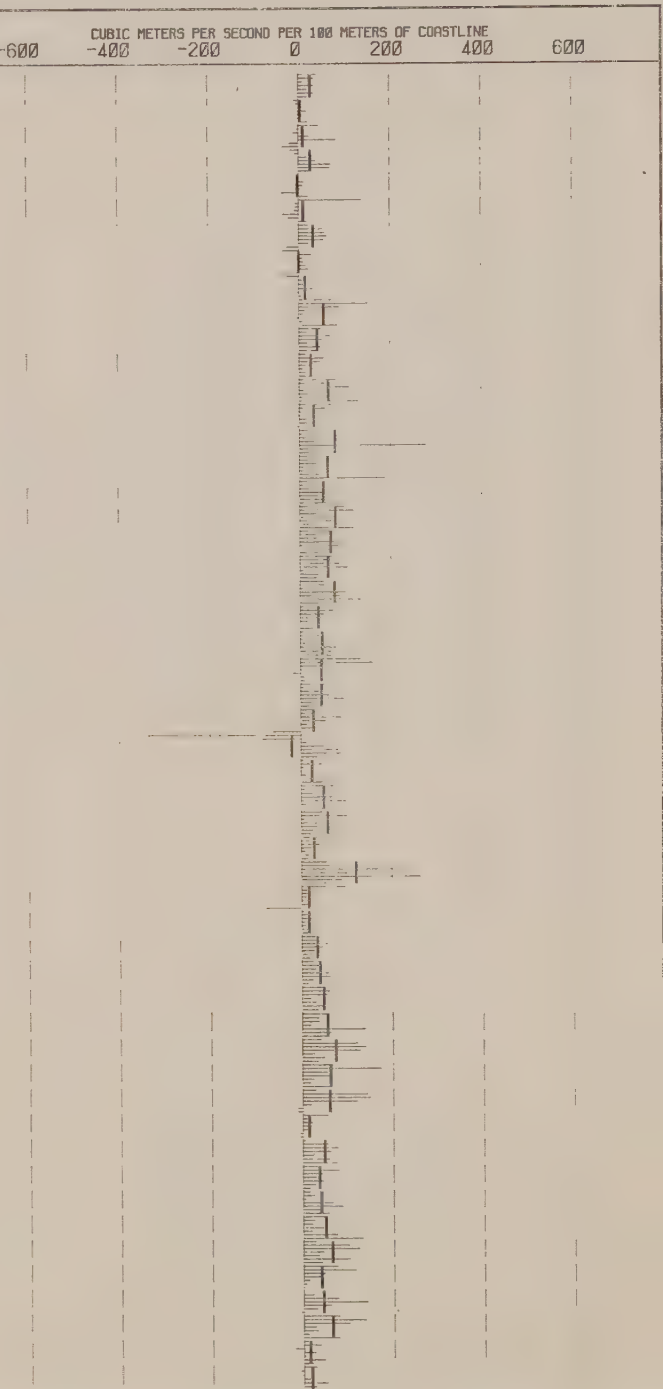
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	26	0	12	77	156	-7	-5	37
8 JAN	205	55	89	-10	20	4	2	52
15 JAN	2	22	3	-4	7	44	26	14
22 JAN	53	-2	45	117	51	46	6	45
29 JAN	7	53	58	45	17	20	18	31
5 FEB	28	39	55	36	57	40	7	37
12 FEB	9	5	-11	29	23	27	21	15
19 FEB	11	24	13	13	15	-41	9	6
26 FEB	62	86	51	22	-5	18	20	36
5 MAR	100	132	46	25	15	-9	13	46
12 MAR	112	34	26	112	29	63	56	62
19 MAR	173	37	39	55	42	51	50	64
26 MAR	13	15	15	-2	58	27	95	31
2 APR	51	110	65	121	139	59	106	93
9 APR	50	65	30	41	72	92	37	55
16 APR	71	124	93	68	75	83	118	90
23 APR	82	88	145	63	87	59	150	96
30 APR	106	62	26	14	30	43	8	41
7 MAY	64	123	102	218	213	151	93	138
14 MAY	63	63	26	14	24	71	194	65
21 MAY	91	99	9	51	90	131	120	84
28 MAY	106	204	62	89	90	37	77	95
4 JUN	60	59	84	128	160	82	114	98
11 JUN	84	24	45	90	63	98	160	80
18 JUN	210	129	134	187	102	38	8	116
25 JUN	-37	-21	95	377	201	92	46	108
2 JUL	23	31	35	37	59	48	111	49
9 JUL	25	58	45	6	29	156	54	53
16 JUL	232	16	46	64	177	9	2	78
23 JUL	55	108	75	-7	-1	12	83	46
30 JUL	168	88	50	26	26	19	30	58
6 AUG	22	55	29	24	95	52	67	49
13 AUG	21	23	42	4	-6	-79	1	1
20 AUG	72	113	240	116	21	30	77	95
27 AUG	36	10	-1	-45	-10	-25	4	-4
3 SEP	136	77	5	-9	13	45	166	63
10 SEP	129	23	65	120	23	84	13	65
17 SEP	77	114	34	24	107	138	266	108
24 SEP	64	117	78	84	96	100	286	118
1 OCT	177	110	14	187	216	43	-8	105
8 OCT	3	42	55	-9	13	39	36	26
15 OCT	46	15	-7	-9	13	-15	38	11
22 OCT	52	35	53	63	66	135	153	80
29 OCT	129	1	-81	118	39	63	13	40
5 NOV	38	23	35	37	49	11	170	52
12 NOV	42	31	22	10	6	29	58	28
19 NOV	23	-1	-5	5	-6	-10	-31	-4
26 NOV	-7	29	14	50	17	74	4	26
3 DEC	-6	4	16	21	41	72	-9	20
10 DEC	53	16	90	-23	1	12	38	27
17 DEC	26	-11	-22	16	34	-25	-21	-0
24 DEC	4	31	73	-12	-3	-31	-33	4
31 DEC	-36	-20	6	21	11	10	19	2



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 24N, 113W

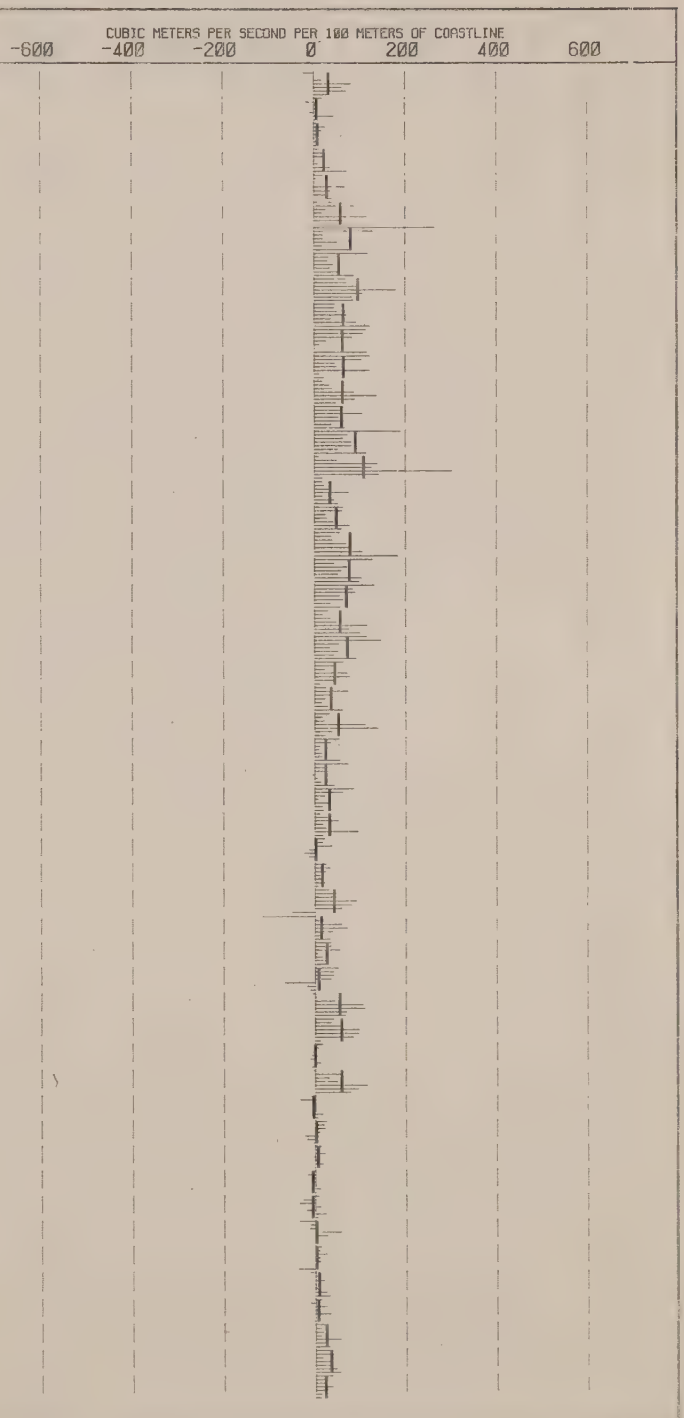
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	50	32	9	32	19	31	18	27
14 JAN	-9	-4	8	18	8	-2	20	6
21 JAN	43	-3	-9	23	83	-19	-34	12
28 JAN	-22	-8	17	37	70	69	26	27
4 FEB	-4	-4	11	8	1	-37	20	-1
11 FEB	136	-5	-5	-8	-34	-21	16	11
18 FEB	21	54	57	63	54	21	-25	35
25 FEB	-36	27	9	10	17	22	-40	1
3 MAR	-26	11	26	32	-3	3	73	17
10 MAR	154	89	13	29	-4	26	83	55
17 MAR	48	25	71	52	19	45	37	42
24 MAR	15	54	48	23	9	16	34	28
31 MAR	82	54	109	11	20	48	127	66
7 APR	75	55	4	-1	73	31	-4	33
14 APR	27	65	46	63	278	40	41	80
21 APR	52	43	37	34	49	43	100	64
28 APR	18	6	51	79	43	79	97	53
5 MAY	107	118	38	69	79	38	118	81
12 MAY	64	35	53	113	87	78	55	69
19 MAY	70	66	85	104	37	42	37	63
26 MAY	53	77	25	103	92	132	68	79
2 JUN	33	60	58	56	20	17	30	42
9 JUN	40	50	17	31	78	69	72	51
16 JUN	135	161	49	3	-39	8	24	49
23 JUN	57	7	40	62	99	38	38	49
30 JUN	28	28	87	57	19	45	-61	29
7 JUL	-337	-83	11	53	81	107	36	-19
14 JUL	5	45	4	0	11	67	53	26
21 JUL	73	20	34	70	98	20	51	52
28 JUL	46	99	82	35	37	25	93	59
4 AUG	81	31	39	22	10	16	16	31
11 AUG	53	63	228	100	262	89	53	121
18 AUG	95	30	16	10	36	12	-79	17
25 AUG	3	14	20	37	10	14	29	18
1 SEP	56	35	56	46	25	21	18	37
8 SEP	36	41	29	59	95	24	13	42
15 SEP	44	59	103	19	29	58	35	50
22 SEP	58	37	36	18	137	69	56	58
29 SEP	41	123	137	127	27	48	34	77
6 OCT	66	173	54	60	24	16	57	64
13 OCT	28	142	149	120	19	-10	-9	63
20 OCT	53	15	21	17	15	-4	-3	16
27 OCT	3	54	77	60	22	57	73	50
3 NOV	31	78	42	29	44	26	14	38
10 NOV	13	25	5	66	86	41	58	42
17 NOV	49	25	20	44	18	73	129	51
24 NOV	25	100	123	44	34	109	40	67
1 DEC	74	115	46	41	12	6	-1	42
8 DEC	-1	22	76	140	60	29	-5	46
15 DEC	78	137	99	26	30	10	79	66
22 DEC	8	36	-18	26	3	46	18	17
29 DEC	28	-6	-2	11	53	26	28	20



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 24N, 113W

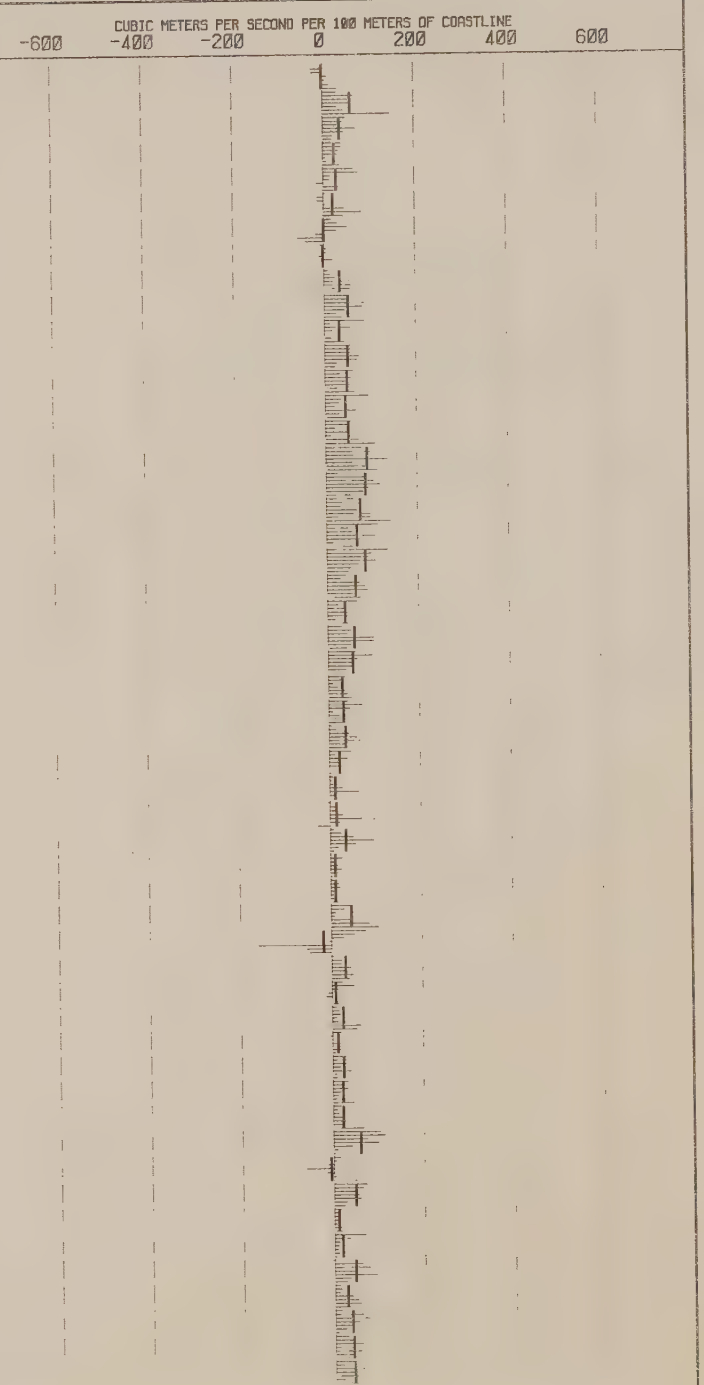
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-22	0	17	79	59	71	34	34
12 JAN	16	-18	3	5	-7	43	11	8
19 JAN	7	25	15	10	2	6	6	10
26 JAN	14	19	24	-0	8	34	70	24
2 FEB	22	3	-1	65	33	30	53	29
9 FEB	57	91	26	15	114	62	49	59
16 FEB	265	128	18	18	49	15	79	82
23 FEB	115	30	27	41	34	55	86	55
2 MAR	68	72	93	177	104	82	84	97
9 MAR	44	44	50	71	36	93	121	66
16 MAR	111	106	81	26	9	-1	114	64
23 MAR	121	102	44	49	120	9	20	66
30 MAR	16	32	40	86	137	88	46	63
6 APR	56	63	103	51	64	36	66	63
13 APR	189	71	63	81	80	51	112	92
20 APR	9	49	135	124	303	141	16	111
27 APR	15	20	34	75	16	41	51	36
4 MAY	62	61	23	26	40	76	58	49
11 MAY	54	35	38	68	70	105	183	80
18 MAY	125	41	77	58	49	101	96	78
25 MAY	129	82	88	53	62	35	56	72
1 JUN	29	16	34	45	113	75	99	59
8 JUN	111	143	52	32	49	42	90	74
15 JUN	62	41	23	71	76	43	11	47
22 JUN	23	73	39	22	14	29	61	37
29 JUN	32	17	20	110	139	37	24	54
6 JUL	53	35	11	7	14	16	54	27
13 JUL	72	26	29	-4	3	11	42	26
20 JUL	84	60	21	7	34	16	18	34
27 JUL	9	27	50	16	25	93	16	34
3 AUG	20	16	37	-12	-23	-11	1	4
10 AUG	23	32	22	10	14	19	6	18
17 AUG	31	46	45	90	80	58	-47	43
24 AUG	-116	8	58	70	39	16	32	15
31 AUG	33	35	54	3	16	28	21	27
7 SEP	49	39	41	33	-67	-16	-10	10
14 SEP	-4	2	43	105	108	68	66	55
21 SEP	41	37	60	96	94	83	10	60
28 SEP	17	6	-4	-5	-10	12	-6	1
5 OCT	-3	59	31	48	112	93	78	60
12 OCT	-8	-32	-1	1	-1	16	4	-3
19 OCT	24	19	20	8	-23	-18	-2	4
26 OCT	13	5	20	-2	2	16	1	8
2 NOV	-6	-15	-8	-7	3	10	-0	-3
9 NOV	6	-26	-33	10	-18	23	5	-5
16 NOV	-34	-9	-13	57	26	3	2	5
23 NOV	12	8	24	7	10	-1	-37	3
30 NOV	-11	6	17	-1	7	24	30	10
7 DEC	11	-11	25	4	33	1	-1	9
14 DEC	26	23	16	10	54	23	30	26
21 DEC	34	37	15	34	36	47	53	37
28 DEC	36	26	19	36	20	13	10	23



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 24N, 113W

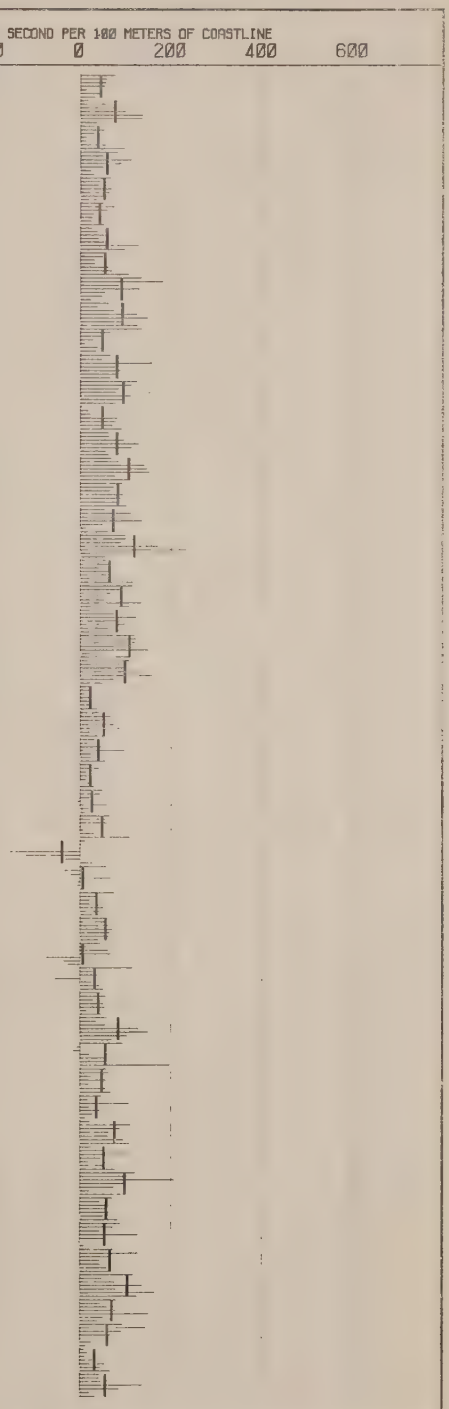
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	-4	-24	-23	8	4	15	31	1
11 JAN	31	65	54	58	30	43	146	61
18 JAN	47	42	30	70	45	20	17	39
25 JAN	38	39	31	30	4	6	34	26
1 FEB	65	73	13	12	-14	33	22	29
8 FEB	2	-12	-12	2	43	83	42	21
15 FEB	16	28	50	26	-16	-55	-39	1
22 FEB	-6	5	5	-10	17	-2	-4	1
1 MAR	8	15	26	57	58	56	34	36
8 MAR	47	49	87	81	45	28	39	54
15 MAR	89	13	57	16	0	14	44	33
22 MAR	57	55	57	74	72	26	23	52
29 MAR	63	33	57	46	54	26	67	49
5 APR	94	36	31	23	67	29	43	46
12 APR	55	47	20	47	13	74	107	52
19 APR	79	97	61	136	59	93	115	91
26 APR	74	88	104	119	93	81	52	87
3 MAY	57	37	92	65	98	96	141	75
10 MAY	114	47	56	108	74	16	58	67
17 MAY	135	98	89	105	76	52	49	86
24 MAY	42	28	71	84	89	59	73	64
31 MAY	64	22	35	55	42	16	45	40
7 JUN	33	51	44	102	99	51	39	60
14 JUN	57	97	64	56	56	41	23	56
21 JUN	35	25	8	22	34	43	52	31
28 JUN	42	72	46	7	23	16	33	34
5 JUL	5	17	44	60	68	38	32	38
12 JUL	49	14	38	24	34	6	3	24
19 JUL	7	3	7	26	61	10	-11	15
26 JUL	-3	16	12	27	67	21	-26	16
2 AUG	7	22	50	95	55	17	6	36
9 AUG	1	24	7	15	23	14	3	12
16 AUG	11	16	18	8	12	11	15	13
23 AUG	45	27	8	5	43	82	105	45
30 AUG	76	52	27	-9	-159	-54	-47	-16
6 SEP	5	23	29	42	32	49	40	31
13 SEP	23	49	11	-8	-11	-3	14	11
20 SEP	9	17	16	11	11	63	53	26
27 SEP	18	-5	0	18	48	17	4	14
4 OCT	29	49	29	17	41	7	8	26
11 OCT	34	21	33	15	15	8	45	24
18 OCT	17	8	12	19	26	22	65	24
25 OCT	104	113	76	99	40	8	2	63
1 NOV	16	3	-12	-60	-30	3	50	-4
8 NOV	72	64	48	55	57	28	24	50
15 NOV	13	10	8	12	4	14	18	11
22 NOV	69	35	10	8	6	7	3	20
29 NOV	-6	61	76	46	94	37	28	48
6 DEC	13	15	11	38	50	57	31	31
13 DEC	17	60	79	54	41	23	7	40
20 DEC	28	40	63	39	57	39	30	42
27 DEC	45	18	61	42	49	33	57	44



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 24N, 113W

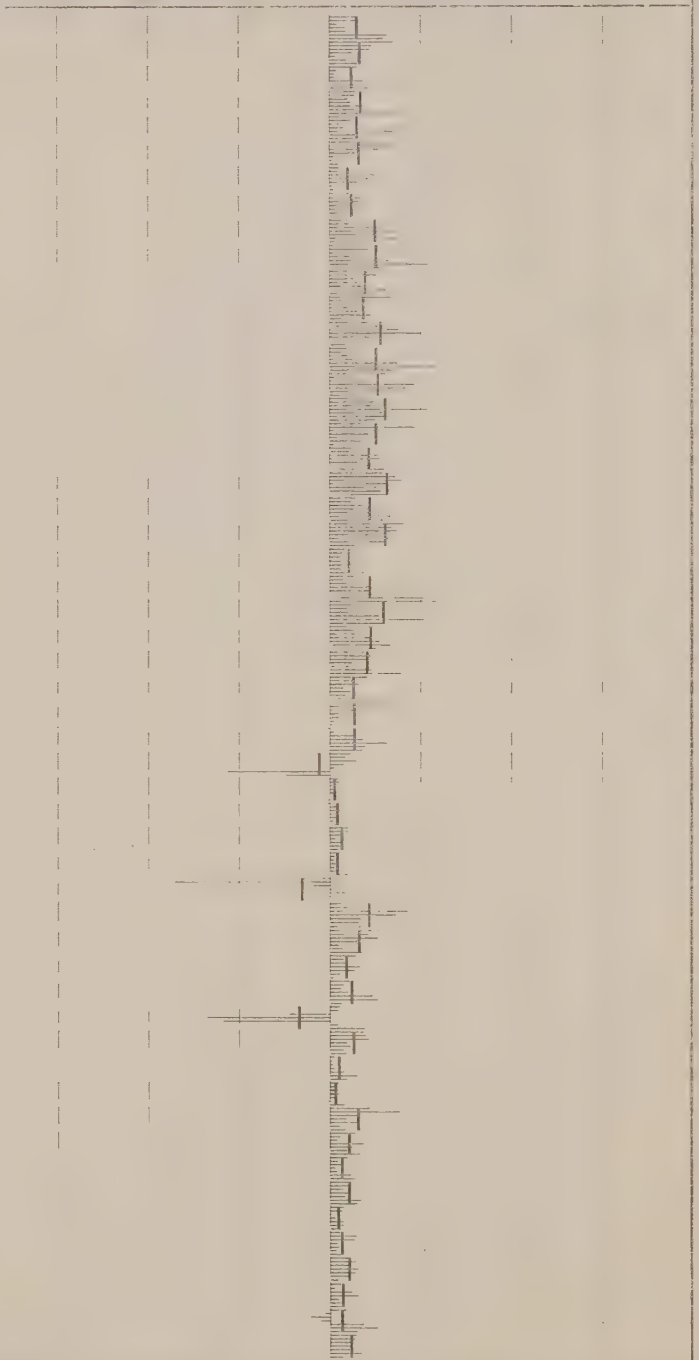
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	75	55	54	51	12	46	30	46
10 JAN	17	56	73	98	137	137	34	79
17 JAN	32	50	27	11	12	53	58	40
24 JAN	82	47	110	87	40	21	29	61
31 JAN	68	44	58	69	63	56	35	53
7 FEB	48	85	57	27	25	21	58	45
14 FEB	25	35	50	39	51	129	99	61
21 FEB	49	48	29	29	61	68	103	55
28 FEB	131	180	83	129	53	46	23	92
7 MAR	61	36	72	123	146	80	125	93
14 MAR	135	67	47	25	8	35	32	50
21 MAR	64	46	156	74	86	50	64	81
28 MAR	121	111	83	77	109	92	79	96
4 APR	3	16	21	79	78	68	58	50
11 APR	60	63	94	126	110	55	60	81
18 APR	67	81	139	143	149	74	106	108
25 APR	89	72	66	92	87	84	105	84
2 MAY	52	110	103	135	48	15	62	75
9 MAY	101	99	90	170	235	86	50	120
16 MAY	57	63	43	61	50	67	114	66
23 MAY	113	87	66	41	53	134	147	92
30 MAY	47	75	122	93	103	67	73	83
6 JUN	120	123	120	102	148	49	106	110
13 JUN	106	87	90	134	150	72	50	100
20 JUN	19	24	10	21	21	16	49	23
27 JUN	42	66	53	72	86	21	30	54
4 JUL	29	16	47	98	22	29	54	42
11 JUL	23	39	12	19	22	20	29	23
18 JUL	49	43	20	-8	50	21	12	28
25 JUL	64	84	60	2	7	30	108	51
1 AUG	10	0	-3	-153	-119	-32	27	-39
8 AUG	59	-34	-21	67	-17	-6	1	7
15 AUG	74	35	19	21	50	43	27	38
22 AUG	56	55	61	72	64	62	41	59
29 AUG	44	16	61	69	-79	-36	-25	7
5 SEP	114	28	37	-55	26	43	50	35
12 SEP	42	57	27	50	55	14	47	42
19 SEP	61	34	54	129	148	103	70	86
26 SEP	95	-7	-14	21	54	57	195	57
3 OCT	57	65	25	57	18	56	67	49
10 OCT	46	15	105	20	42	26	11	38
17 OCT	21	111	86	61	61	94	109	78
24 OCT	26	52	101	45	19	53	78	53
31 OCT	121	102	206	93	75	21	90	101
7 NOV	71	43	64	55	61	49	82	61
14 NOV	90	71	41	126	55	-2	8	56
21 NOV	71	126	67	42	46	57	65	68
28 NOV	116	49	76	135	77	165	124	106
5 DEC	78	46	60	79	151	51	40	72
12 DEC	92	144	91	67	1	25	12	62
19 DEC	7	17	9	33	54	45	67	33
26 DEC	44	43	47	137	86	19	31	58



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1972 AT 24N, 113W

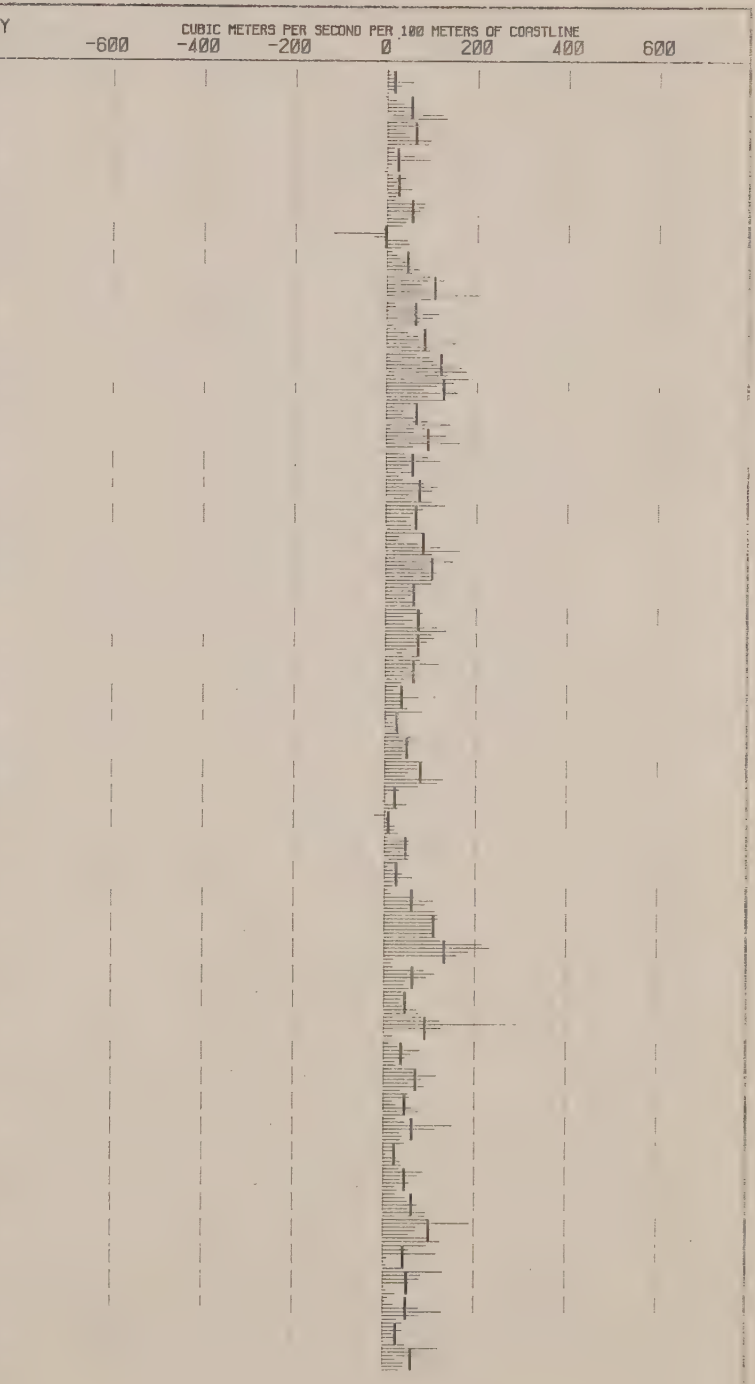
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	56	61	15	31	95	124	116	63
9 JAN	137	91	86	48	13	36	60	67
16 JAN	59	15	12	18	79	92	84	50
23 JAN	59	53	41	47	65	68	156	70
30 JAN	24	50	26	31	141	76	84	62
6 FEB	99	147	106	55	27	5	17	65
13 FEB	20	22	100	85	62	3	8	43
20 FEB	69	70	66	57	28	17	38	49
27 FEB	47	91	101	151	97	150	72	101
5 MAR	40	86	56	89	130	217	115	105
12 MAR	40	102	53	72	77	121	100	81
19 MAR	137	27	84	77	70	91	48	76
26 MAR	84	105	153	199	103	57	97	114
2 APR	67	26	53	69	148	232	138	105
9 APR	123	50	77	187	165	97	63	109
16 APR	86	110	110	216	114	135	102	125
23 APR	92	191	137	84	60	67	94	104
30 APR	72	63	109	112	60	88	119	89
7 MAY	124	144	160	129	101	112	127	128
14 MAY	56	45	74	90	110	132	116	89
21 MAY	164	136	147	115	129	119	56	124
28 MAY	31	43	23	26	49	58	74	43
4 JUN	60	33	39	107	91	91	207	90
11 JUN	236	85	40	57	108	206	113	121
18 JUN	97	55	54	97	109	132	100	92
25 JUN	74	89	88	49	41	95	157	85
2 JUL	82	49	63	29	43	35	74	54
9 JUL	152	108	54	20	33	21	3	56
16 JUL	-3	8	51	72	123	76	70	57
23 JUL	45	32	56	27	8	-224	-96	-22
30 JUL	16	33	24	13	7	3	-16	11
6 AUG	-4	13	30	18	17	8	47	18
13 AUG	53	41	26	10	25	28	16	28
20 AUG	22	11	6	23	8	17	39	18
27 AUG	-94	-345	-47	30	95	-1	-4	-61
3 SEP	25	64	172	145	66	62	79	88
10 SEP	107	86	104	58	18	27	68	67
17 SEP	56	28	33	65	51	20	7	37
24 SEP	42	27	23	38	91	104	24	50
1 OCT	20	16	-88	-271	-235	17	73	-67
8 OCT	72	77	83	36	43	27	34	53
15 OCT	7	2	4	9	30	59	37	21
22 OCT	17	13	16	19	10	-2	30	15
29 OCT	87	151	64	34	63	20	32	64
5 NOV	54	23	15	73	45	37	63	44
12 NOV	37	16	25	9	15	44	56	29
19 NOV	45	39	28	37	32	66	58	44
26 NOV	29	25	0	10	28	27	23	20
3 DEC	20	56	52	15	18	12	27	28
10 DEC	43	56	41	60	54	40	17	44
17 DEC	22	8	46	60	19	26	25	29
24 DEC	33	-10	-42	-21	72	105	57	28
31 DEC	57	52	43	43	44	67	27	47



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 24N, 113W

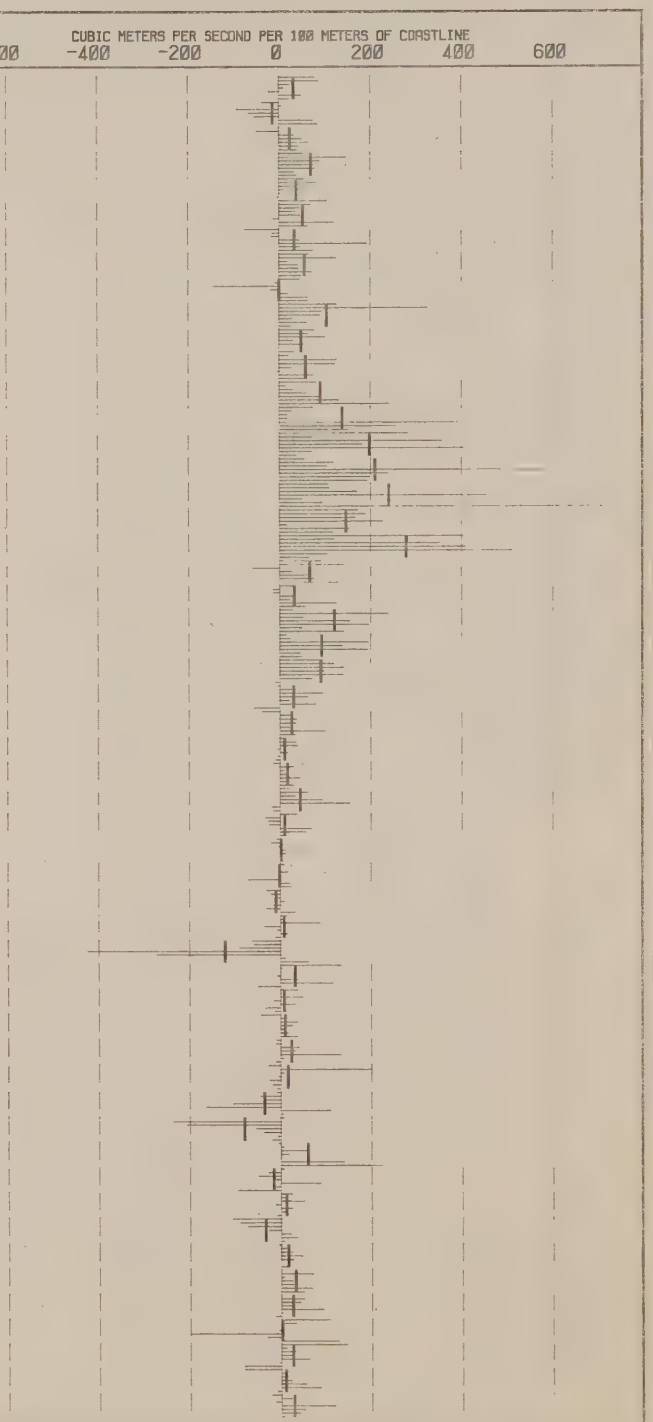
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	3	7	13	56	29	12	1	17
14 JAN	-5	17	38	58	35	124	131	57
21 JAN	63	73	49	40	51	96	89	66
28 JAN	16	14	57	96	8	-2	-6	26
4 FEB	12	41	34	14	54	27	18	29
11 FEB	19	82	81	73	65	44	33	57
18 FEB	31	-5	-115	-28	45	48	30	1
25 FEB	13	22	52	56	55	74	57	47
4 MAR	94	124	78	64	97	205	96	108
11 MAR	17	62	64	115	100	72	29	65
18 MAR	48	46	68	72	151	114	96	85
25 MAR	68	93	102	114	165	175	136	122
1 APR	190	146	110	80	159	90	121	128
8 APR	62	49	37	35	61	89	139	67
15 APR	85	60	131	134	161	59	23	93
22 APR	39	91	119	49	96	62	29	61
29 APR	40	83	114	100	49	45	101	76
6 MAY	128	79	57	53	44	57	54	67
13 MAY	77	28	33	70	119	164	100	85
20 MAY	91	147	94	80	113	102	97	104
27 MAY	100	64	66	57	42	65	61	65
3 JUN	66	80	37	58	40	112	131	75
10 JUN	101	106	90	65	46	36	74	74
17 JUN	77	117	54	63	62	44	34	64
24 JUN	26	16	39	72	99	32	48	39
1 JUL	80	19	2	21	19	28	30	28
8 JUL	55	72	67	38	50	35	36	51
15 JUL	81	69	70	50	43	127	116	80
22 JUL	71	30	3	-0	-5	45	27	25
29 JUL	3	-21	9	6	22	21	29	10
5 AUG	40	54	53	42	30	57	52	48
12 AUG	24	6	18	38	59	30	18	28
19 AUG	6	12	64	105	89	51	110	62
26 AUG	115	116	106	103	102	110	114	109
2 SEP	122	215	229	183	157	21	14	135
9 SEP	17	86	110	92	47	42	55	64
16 SEP	38	42	36	32	40	71	77	48
23 SEP	81	122	292	124	-0	20	10	93
30 SEP	10	29	77	58	46	25	36	40
7 OCT	66	64	115	81	56	68	36	72
14 OCT	53	56	16	25	61	75	43	47
21 OCT	26	47	150	112	34	41	35	64
28 OCT	46	19	25	3	18	35	39	27
4 NOV	34	86	74	35	56	25	30	49
11 NOV	27	48	52	75	55	93	92	63
18 NOV	96	189	73	70	55	103	124	101
25 NOV	94	56	116	8	2	6	46	47
2 DEC	130	83	77	56	2	6	25	54
9 DEC	11	5	28	78	127	81	31	52
16 DEC	43	25	42	21	29	3	48	30
23 DEC	122	97	72	29	45	47	42	65



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1967 AT 21N, 107W

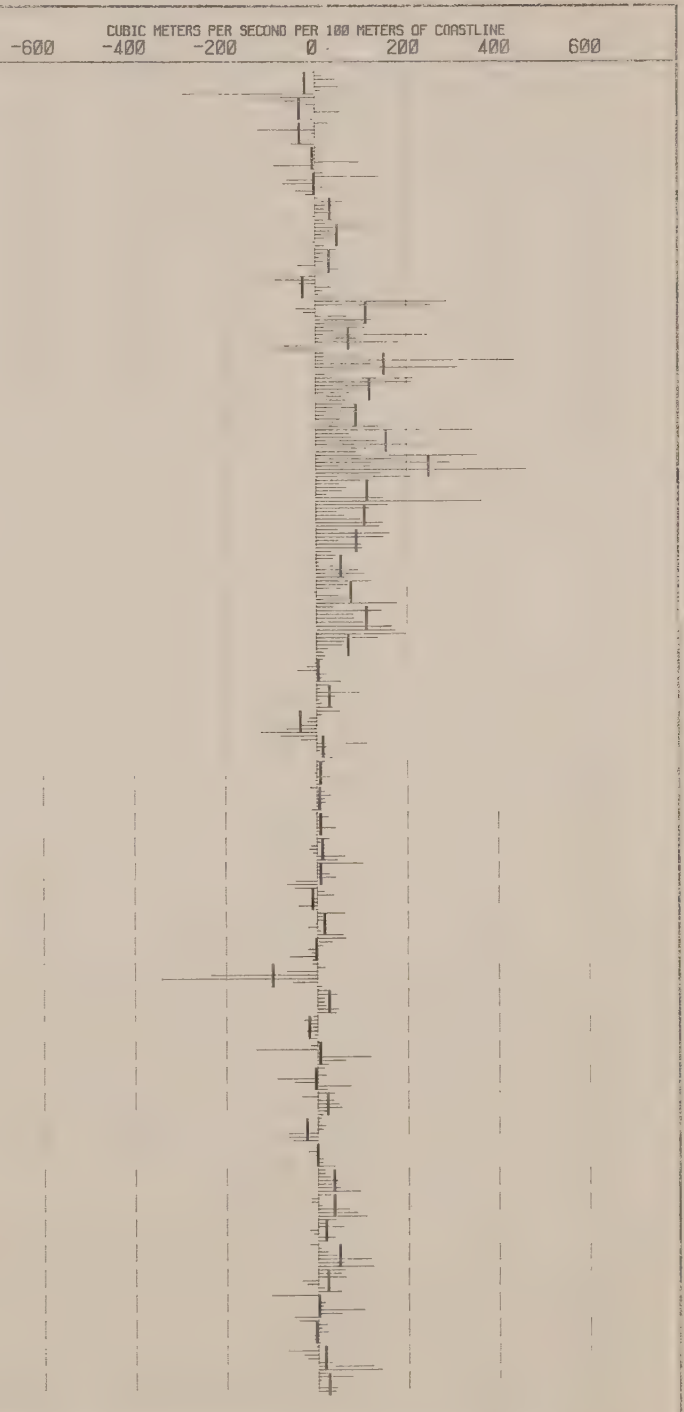
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
1 JAN	79	86	22	11	-22	48	22	35
8 JAN	-37	3	-92	-66	-54	74	84	-12
15 JAN	-1	-48	32	50	64	45	39	26
22 JAN	52	147	89	74	77	32	39	73
29 JAN	54	83	34	12	2	-9	105	41
5 FEB	68	57	33	47	-12	119	63	54
12 FEB	-73	-15	-15	45	193	45	73	36
19 FEB	64	123	18	39	43	73	48	58
26 FEB	43	-8	-144	-18	17	63	62	2
5 MAR	125	323	92	90	27	59	24	106
12 MAR	77	61	99	30	51	-1	32	50
19 MAR	20	126	122	25	-5	76	57	60
26 MAR	79	14	28	60	90	130	299	91
2 APR	74	27	28	50	392	258	153	140
9 APR	282	70	357	181	404	70	37	200
16 APR	54	117	103	579	238	198	192	212
23 APR	107	108	169	456	51	95	708	242
30 APR	172	189	166	226	17	153	116	148
7 MAY	401	119	352	408	511	103	65	280
14 MAY	91	144	-58	26	66	73	128	67
21 MAY	32	-14	-14	29	22	123	58	34
28 MAY	27	237	52	154	194	47	148	122
4 JUN	15	21	194	136	192	45	58	93
11 JUN	93	118	140	95	138	70	-10	92
18 JUN	-4	34	95	60	20	78	-56	32
25 JUN	-38	21	36	34	19	98	31	29
2 JUL	6	34	39	-3	15	-4	-8	11
9 JUL	-14	29	7	12	42	14	30	17
16 JUL	18	61	31	92	151	-17	-14	46
23 JUL	35	-32	-27	-24	69	56	13	13
30 JUL	-7	-19	-5	57	12	-14	3	4
6 AUG	7	-1	15	1	-71	19	23	-1
13 AUG	-30	-19	-4	8	-14	-29	32	-8
20 AUG	14	7	86	-34	-7	14	-10	10
27 AUG	-62	-59	-89	-424	-272	11	60	-119
3 SEP	132	3	-1	-5	37	116	-47	33
10 SEP	38	2	48	-13	35	-32	-13	9
17 SEP	-41	9	37	26	7	16	37	13
24 SEP	-7	-10	39	32	134	6	-10	26
1 OCT	-26	200	7	-3	-23	-16	-9	18
8 OCT	-7	-45	-37	-103	-164	109	4	-35
15 OCT	6	-237	-206	-55	-35	-5	-19	-79
22 OCT	-4	5	57	16	0	138	224	62
29 OCT	6	-28	-49	-11	86	-10	-94	-14
5 NOV	23	12	51	-12	24	14	-8	15
12 NOV	-106	-90	-72	-26	20	37	6	-33
19 NOV	-4	17	27	47	26	1	12	18
26 NOV	-1	70	7	25	25	68	50	35
3 DEC	1	49	42	22	92	3	-12	28
10 DEC	105	32	4	-5	-200	-29	125	5
17 DEC	144	12	30	27	63	-4	-80	27
24 DEC	-81	5	6	22	55	86	-8	12
31 DEC	-20	22	-12	119	51	40	6	29



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1968 AT 21N, 107W

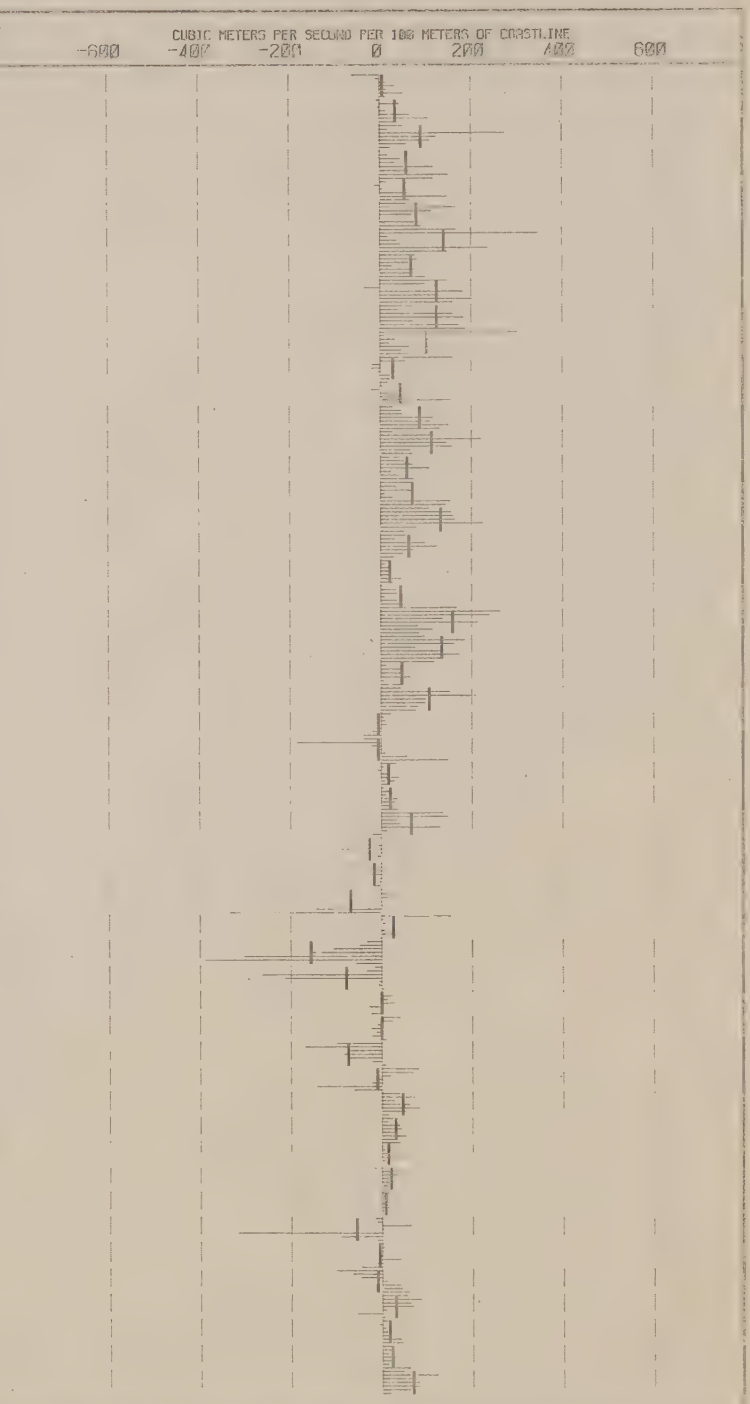
WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	-4	18	47	3	52	42	-290	-19
14 JAN	-145	-73	-18	-3	58	0	-37	-31
21 JAN	30	-28	-125	-6	0	-36	-52	-31
28 JAN	11	-2	-8	-10	90	-104	-5	-3
4 FEB	22	142	-61	-70	32	-42	-20	1
11 FEB	8	63	37	35	45	-4	52	33
18 FEB	121	87	33	46	47	-4	21	50
25 FEB	40	46	51	55	-41	53	16	33
3 MAR	-171	-87	-36	36	10	6	46	-27
10 MAR	287	257	-43	-26	60	124	110	111
17 MAR	109	42	246	91	102	-69	-81	74
24 MAR	17	99	436	121	315	61	19	152
31 MAR	214	212	115	109	73	55	66	121
7 APR	64	88	110	55	55	71	164	89
14 APR	344	76	81	136	252	110	83	155
21 APR	358	169	294	120	465	143	207	251
28 APR	96	50	65	57	22	148	363	115
5 MAY	159	116	44	62	97	146	139	109
12 MAY	47	160	146	47	90	100	32	90
19 MAY	42	37	4	50	91	107	62	56
26 MAY	121	67	53	-5	50	80	175	77
2 JUN	37	142	81	82	101	163	173	111
9 JUN	196	134	61	56	24	14	18	72
16 JUN	13	-2	-21	-41	23	11	59	5
23 JUN	24	5	96	40	4	12	33	31
30 JUN	50	12	-26	-21	-36	-97	-122	-34
7 JUL	-80	-33	109	22	5	48	34	15
14 JUL	15	8	10	-4	29	-1	8	9
21 JUL	-14	17	30	16	10	2	-10	8
28 JUL	-2	23	4	2	39	9	-1	10
4 AUG	26	6	-12	-15	-8	60	44	14
11 AUG	100	10	10	26	41	-46	-67	11
18 AUG	-47	14	35	-7	-9	-40	-1	-8
25 AUG	59	10	12	-2	-20	6	55	17
1 SEP	62	32	11	-19	-12	-59	-9	1
8 SEP	-9	16	-66	-232	-342	-54	9	-97
15 SEP	29	41	15	13	17	45	41	29
22 SEP	-10	-27	-14	-11	-22	-6	-18	-15
29 SEP	3	-13	-135	6	117	60	23	9
6 OCT	13	-1	18	-07	-50	72	19	-2
13 OCT	97	-34	34	46	53	23	10	24
20 OCT	6	2	17	11	-65	-69	-55	-22
27 OCT	1	-4	-20	-20	12	9	30	2
3 NOV	15	13	26	41	28	47	93	38
10 NOV	26	-13	-13	9	69	85	107	38
17 NOV	37	20	56	-17	-8	36	16	20
24 NOV	-17	5	22	41	117	55	120	49
1 DEC	57	50	59	-35	-24	13	51	24
8 DEC	-102	1	15	10	99	50	-51	3
15 DEC	-42	19	6	20	-8	-7	1	-1
22 DEC	-5	-104	-29	-23	30	120	137	18
29 DEC	19	74	4	0	42	37	-8	25



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1969 AT 21N, 107W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
5 JAN	-60	-9	16	33	14	51	13	8
12 JAN	6	41	-4	11	64	107	37	36
19 JAN	90	15	272	122	100	58	22	92
26 JAN	0	15	43	32	116	63	148	60
2 FEB	115	13	-11	4	61	140	63	56
9 FEB	56	169	113	69	-0	84	90	83
16 FEB	166	347	18	37	45	207	146	142
23 FEB	77	81	61	26	73	73	99	70
2 MAR	140	99	34	161	120	200	158	126
9 MAR	71	38	160	182	72	173	167	126
16 MAR	300	127	31	20	65	46	136	104
23 MAR	150	55	-17	-18	-4	20	20	31
30 MAR	16	4	-21	65	50	156	59	47
6 APR	25	43	46	114	109	140	131	88
13 APR	25	115	220	144	156	69	70	114
20 APR	42	57	70	107	25	41	72	59
27 APR	66	33	79	7	26	159	142	72
4 MAY	107	153	157	162	223	78	53	133
11 MAY	53	30	96	123	70	48	90	64
18 MAY	22	10	17	16	19	43	26	22
25 MAY	2	32	95	0	95	47	165	46
1 JUN	263	238	194	219	80	114	83	160
8 JUN	96	184	161	74	196	172	135	137
15 JUN	115	10	47	47	64	3	47	47
22 JUN	43	150	210	98	95	79	76	107
29 JUN	19	4	8	13	-7	-19	-38	-3
6 JUL	-36	-184	-23	-1	9	56	147	-5
13 JUL	31	3	-5	12	97	28	17	18
20 JUL	5	15	0	35	30	20	95	21
27 JUL	134	147	94	40	129	12	-19	68
3 AUG	-5	-26	-6	-09	-33	-8	1	-24
10 AUG	-2	11	-36	-28	-4	-4	-12	-14
17 AUG	-2	24	14	-1	3	-145	-300	-67
24 AUG	153	8	9	-0	7	23	-1	28
31 AUG	-31	-47	-106	-154	-302	-307	-56	-155
7 SEP	-14	-32	-261	-212	-5	-6	3	-75
14 SEP	-0	25	12	28	-20	2	-23	2
21 SEP	41	25	-9	-21	-10	-20	0	2
28 SEP	-99	-168	-74	-82	-74	-20	10	-72
5 OCT	80	68	18	-6	-20	-141	-60	-9
12 OCT	37	73	25	59	83	51	14	49
19 OCT	22	11	36	42	90	59	33	33
26 OCT	39	0	4	21	48	5	-4	16
2 NOV	-19	79	38	16	18	10	16	23
9 NOV	18	11	5	19	26	2	-14	10
16 NOV	-14	-11	61	2	-318	-90	-11	-54
23 NOV	-5	5	-0	-5	39	-10	-45	-3
30 NOV	-99	-63	-46	9	40	42	58	-9
7 DEC	54	83	62	69	8	-54	5	33
14 DEC	11	-7	7	10	17	41	44	18
21 DEC	17	21	12	27	22	12	61	25
28 DEC	46	120	76	80	90	60	10	70



COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1970 AT 21N, 107W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
4 JAN	6	43	94	-15	-3	-25	33	19
11 JAN	83	126	230	133	121	123	67	126
18 JAN	96	18	36	93	55	47	8	51
25 JAN	2	27	20	10	40	-2	13	16
1 FEB	65	89	0	-21	-22	15	25	22
8 FEB	10	-17	-23	-21	56	8	9	3
15 FEB	94	12	7	5	30	-27	-144	-3
22 FEB	52	70	52	37	63	136	47	65
1 MAR	19	138	94	107	143	259	258	144
8 MAR	57	132	159	173	121	86	65	113
15 MAR	52	61	44	63	95	132	199	84
22 MAR	112	93	66	93	99	28	98	64
29 MAR	139	138	127	100	69	115	182	124
5 APR	105	32	60	90	211	66	120	99
12 APR	39	115	158	176	63	161	231	135
19 APR	292	152	116	140	209	22	127	151
26 APR	159	117	138	162	183	117	66	135
3 MAY	-15	19	39	35	81	97	104	51
10 MAY	135	144	50	33	-1	23	20	58
17 MAY	30	0	13	50	77	61	103	48
24 MAY	86	88	95	161	137	66	204	120
31 MAY	98	69	12	17	62	88	61	60
7 JUN	14	42	56	102	133	82	115	78
14 JUN	153	82	89	46	47	33	46	71
21 JUN	95	9	15	42	13	15	25	21
28 JUN	-11	-20	-1	1	13	23	9	2
5 JUL	-2	29	21	17	-1	23	36	18
12 JUL	24	10	9	36	21	-19	-21	9
19 JUL	-79	-5	42	31	13	-88	-33	-17
26 JUL	-10	-2	-2	15	-41	-165	-36	-26
2 AUG	18	4	27	-2	-83	-94	36	-13
9 AUG	50	33	30	26	17	13	9	26
16 AUG	2	-10	-2	10	5	14	19	5
23 AUG	15	41	8	1	7	8	1	11
30 AUG	-32	-22	-215	-265	-159	-22	10	-101
6 SEP	44	26	22	42	19	11	20	26
13 SEP	10	-1	-42	-66	-32	-1	-1	-19
20 SEP	-3	11	20	19	15	-0	30	14
27 SEP	-135	-53	-57	8	16	4	-9	-32
4 OCT	-1	17	-18	30	78	15	35	22
11 OCT	44	18	13	25	-2	-8	-18	10
18 OCT	-14	-8	-36	20	22	41	35	8
25 OCT	68	68	52	26	31	2	25	39
1 NOV	9	-29	-243	-382	-303	-143	4	-155
8 NOV	8	-1	-7	27	37	50	46	23
15 NOV	-175	-103	-0	6	7	-1	7	-37
22 NOV	99	12	-65	-33	20	16	-1	-2
29 NOV	-32	-11	-17	11	-1	-41	-19	-16
6 DEC	-72	-57	-13	-41	-1	43	3	-20
13 DEC	-11	-10	96	21	-7	6	37	19
20 DEC	17	47	10	32	-11	3	-8	13
27 DEC	4	19	37	65	-19	-6	27	18

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1971 AT 21N, 107W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
3 JAN	119	91	66	49	10	49	65	64
10 JAN	33	2	32	61	59	12	-14	26
17 JAN	12	45	-15	-56	20	45	81	19
24 JAN	59	52	-2	-5	2	39	31	25
31 JAN	89	3	-13	26	69	24	40	34
7 FEB	65	-6	-3	-30	14	14	-55	-0
14 FEB	5	17	8	32	115	68	92	48
21 FEB	109	49	26	83	81	142	79	81
28 FEB	173	203	264	-6	-33	25	89	102
7 MAR	-10	-16	9	59	100	122	193	65
14 MAR	170	53	15	17	74	14	-27	45
21 MAR	36	58	32	24	33	45	51	40
28 MAR	79	46	5	34	69	22	9	38
4 APR	8	-6	-54	-112	-25	18	-14	-26
11 APR	-30	3	43	20	81	60	61	34
18 APR	122	185	223	223	266	156	157	190
25 APR	164	272	230	241	215	86	36	177
2 MAY	30	27	76	60	96	74	61	61
9 MAY	81	28	26	92	41	18	32	46
16 MAY	66	66	142	71	149	109	97	100
23 MAY	97	99	72	47	78	66	156	88
30 MAY	122	128	153	149	60	28	34	96
6 JUN	31	58	42	104	80	117	70	72
13 JUN	45	47	62	84	13	3	21	39
20 JUN	26	3	9	7	2	16	30	13
27 JUN	62	78	48	22	-4	34	22	40
4 JUL	21	33	40	-2	15	10	-13	15
11 JUL	-5	-2	3	2	30	9	29	10
18 JUL	12	14	0	11	-14	62	53	20
25 JUL	34	108	5	-11	2	16	-0	22
1 AUG	1	-61	-58	-24	6	-9	-20	-24
8 AUG	-202	-61	-89	-38	3	7	9	-53
15 AUG	26	12	12	41	6	20	19	19
22 AUG	24	10	7	9	-4	-22	-5	3
29 AUG	-32	18	78	-56	-45	-11	54	1
5 SEP	33	23	-190	-8	-14	5	16	-19
12 SEP	23	9	16	-2	3	12	20	11
19 SEP	4	19	11	28	-2	10	-13	8
26 SEP	-539	-102	-6	6	32	82	40	-81
3 OCT	119	76	23	-9	-95	-5	-11	23
10 OCT	-29	-102	-1	-10	4	40	-7	-15
17 OCT	40	65	109	29	19	32	-13	40
24 OCT	-28	2	32	19	15	77	106	32
31 OCT	-23	43	40	58	-48	3	20	13
7 NOV	-0	-98	-41	-66	-49	20	25	-30
14 NOV	48	90	59	79	58	45	16	55
21 NOV	16	162	113	44	48	65	48	71
28 NOV	28	46	175	72	62	39	72	70
5 DEC	103	143	33	84	141	113	141	108
12 DEC	58	58	101	48	22	6	-10	40
19 DEC	60	40	-22	-60	-29	-15	-36	-9
26 DEC	6	14	51	67	69	51	98	51

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

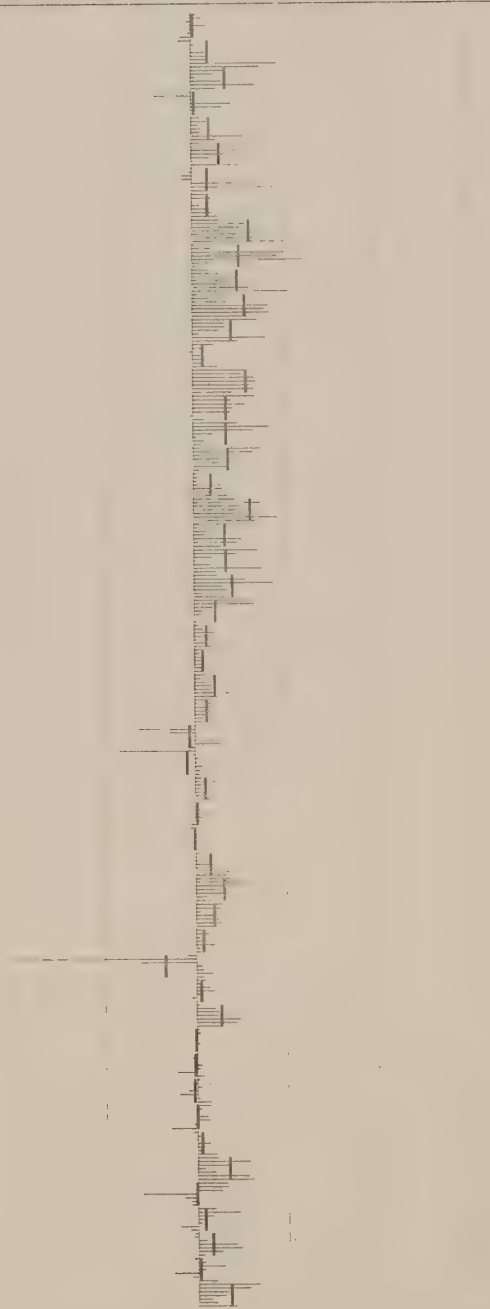
DURING 1972 AT 21N, 107W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
2 JAN	46	51	129	77	102	10	78	70
9 JAN	67	98	95	82	95	52	42	67
16 JAN	-76	31	20	41	154	146	106	60
23 JAN	99	81	44	48	76	32	75	65
30 JAN	105	169	186	176	57	-11	30	102
6 FEB	180	150	78	84	27	50	106	96
13 FEB	67	83	145	216	61	8	-43	77
20 FEB	29	2	-5	15	106	68	44	37
27 FEB	64	41	121	165	146	69	45	93
5 MAR	-4	66	41	89	49	10	34	41
12 MAR	65	39	31	51	145	170	111	87
19 MAR	185	82	76	98	79	45	8	82
26 MAR	80	181	223	101	122	91	25	118
2 APR	46	34	95	27	75	109	40	52
9 APR	30	14	95	186	140	140	104	101
16 APR	50	68	38	86	193	155	68	97
23 APR	74	56	62	54	95	24	32	57
30 APR	18	76	44	5	3	13	67	32
7 MAY	101	87	95	65	61	81	72	80
14 MAY	63	37	58	73	47	33	39	54
21 MAY	61	59	120	64	23	16	13	51
28 MAY	5	11	22	40	20	89	26	30
4 JUN	9	8	9	113	72	118	126	65
11 JUN	160	87	80	183	101	116	99	118
18 JUN	42	43	112	90	62	61	31	63
25 JUN	122	52	4	35	13	42	26	42
2 JUL	22	4	-1	9	4	16	11	9
9 JUL	14	9	7	10	22	6	3	9
16 JUL	10	13	93	9	15	11	11	14
23 JUL	2	6	-4	-0	-42	-29	-11	-11
30 JUL	-4	-2	-14	-9	-3	-29	-34	-13
6 AUG	-13	7	7	8	7	4	24	6
13 AUG	11	1	-7	0	16	42	15	11
20 AUG	-10	-22	7	9	7	-27	-105	-20
27 AUG	-222	-28	27	-10	-16	7	31	-30
3 SEP	15	27	22	30	10	5	25	19
10 SEP	44	41	11	2	7	11	3	17
17 SEP	-7	-17	11	8	1	1	29	4
24 SEP	53	62	37	14	0	2	-3	23
1 OCT	-4	-19	-44	-19	-15	66	50	2
8 OCT	23	34	20	-15	-18	11	-4	7
15 OCT	-36	-9	13	10	-6	5	8	-2
22 OCT	36	23	8	1	33	-2	-57	6
29 OCT	-52	5	40	72	35	10	41	21
5 NOV	47	61	-27	10	68	34	35	32
12 NOV	114	57	12	31	37	57	48	51
19 NOV	11	-5	-47	-65	-27	7	49	-11
26 NOV	19	40	-4	-7	-11	-2	43	11
3 DEC	68	31	55	6	14	73	119	52
10 DEC	28	39	75	30	139	-13	-217	12
17 DEC	-63	4	54	59	37	20	15	18
24 DEC	-21	-17	-96	-73	-12	43	31	-21
31 DEC	53	-7	40	48	16	31	13	27

COASTAL UPWELLING INDICES, DAILY AND WEEKLY MEANS

DURING 1973 AT 21N, 107W

WEEK BEGINNING	DAILY VALUES SUN	MON	TUE	WED	THU	FRI	SAT	WEEKLY MEAN
7 JAN	10	22	-8	33	8	-4	-22	6
14 JAN	-25	6	0	29	31	38	187	38
21 JAN	152	73	45	9	65	139	52	77
28 JAN	-17	-79	0	86	65	6	-4	8
4 FEB	17	31	14	19	33	112	52	40
11 FEB	20	78	106	73	39	2	109	61
18 FEB	2	-4	-19	-21	87	179	31	36
25 FEB	33	40	0	16	38	42	87	36
4 MAR	63	115	104	133	112	136	216	125
11 MAR	16	40	200	187	243	33	5	103
18 MAR	38	58	98	76	91	122	210	99
25 MAR	79	52	75	166	156	169	119	117
1 APR	141	67	70	55	15	158	98	86
8 APR	45	21	-13	16	27	24	54	25
15 APR	111	104	132	137	124	132	84	118
22 APR	134	82	112	85	80	-3	24	73
29 APR	96	167	131	42	7	24	47	73
6 MAY	145	129	59	59	59	78	16	78
13 MAY	10	9	6	57	64	56	75	40
20 MAY	90	145	104	98	124	186	135	126
27 MAY	141	45	31	21	104	95	58	71
3 JUN	139	92	38	2	35	149	48	72
10 JUN	51	113	176	62	71	67	66	87
17 JUN	118	132	47	21	16	-1	1	48
24 JUN	8	18	45	31	16	28	47	28
1 JUL	43	11	16	17	13	14	21	19
8 JUL	75	12	26	42	36	79	49	45
15 JUL	25	36	29	34	27	33	16	28
22 JUL	2	-128	-54	3	59	56	-14	-11
29 JUL	-166	-3	20	4	17	10	9	-16
5 AUG	12	44	14	12	24	36	32	25
12 AUG	-10	3	10	36	17	8	-23	6
19 AUG	-14	-0	19	-4	-11	0	14	1
26 AUG	8	0	3	47	36	72	68	34
2 SEP	76	108	95	40	70	25	30	63
9 SEP	57	51	7	40	49	58	38	43
16 SEP	17	26	5	26	39	6	8	18
23 SEP	-18	-395	-122	12	15	35	13	-66
30 SEP	17	10	28	37	8	-9	-2	12
7 OCT	4	41	48	73	94	87	50	57
14 OCT	5	5	-1	-3	3	-1	-2	1
21 OCT	1	-7	-2	10	5	-42	15	-3
28 OCT	4	-10	7	-19	-38	4	28	-3
4 NOV	27	8	1	21	25	-5	-57	3
11 NOV	-11	5	-1	25	15	8	41	12
18 NOV	43	114	68	14	38	111	122	73
25 NOV	65	67	52	-121	-28	-15	-15	1
2 DEC	37	89	31	12	6	-39	-17	17
9 DEC	-6	-10	18	84	93	52	12	35
16 DEC	-8	13	55	14	-53	-12	40	7
23 DEC	134	111	64	58	27	41	83	74



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